Ocean Breeze Ranch Project

Agricultural Resources Report

PDS2016-TM-5615
PDS2016-MUP-16-012
PDS2016-MUP-16-013

August 2019 | OBR-01

Prepared for:

County of San Diego
Planning & Development Services
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San Diego, CA 92123

Project Proponent:

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Dennis Marcin
County-approved Agricultural
Resources Report Preparer

Ocean Breeze Ranch Project

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GLOSSARY OF TERMS

Terms

Active Agricultural Operations

Active agricultural operations refer to the routine and ongoing commercial operations associated with a farm, orchard/grove, dairy, or other agricultural business and shall include: (1) the cultivation and tillage of soil; crop rotation; fallowing for agricultural purposes; the production, cultivation, growing, replanting and harvesting of any agricultural commodity including viticulture, vermiculture, apiculture, or horticulture; (2) the raising of livestock, fur bearing animals, fish or poultry, and dairying; (3) any practices performed by a farmer on a farm as incident to or in conjunction with farming operations, including the preparation for market, delivery to storage or to market, or delivery to carriers for transportation to market; and (4) ordinary pasture maintenance and renovation and dry land farming operations consistent with rangeland management. All such activities must be consistent with the economics of commercial agricultural operations and other similar agricultural activities.

Agricultural Resource

The term Agricultural Resource refers to any of the following: (1) a site with an active agricultural operation; (2) a site designated as, *and that meets the definition of*, an Important Farmland Category (Prime Farmland, Farmland of Statewide Importance, Unique farmland, and Farmland of Local Importance) as defined by the California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP); and (3) a site with a history of agricultural production based on aerial photography or other data sources identifying agricultural land uses. Examples of other data sources that identify agricultural land use include data from the San Diego County Department of Agriculture, Weights and Measures (AWM), the California Department of Water Resources (DWR) land use data, and vegetation data from the San Diego County Planning & Development Services (PDS).

Important Agricultural Resource

An agricultural resource determined to be important pursuant to the County LARA Model.

Row/Field Crops

Section 1720 of the County Zoning Ordinance defines row and field crop operations as premises primarily devoted to the cultivation for sale of agricultural products grown in regular or scattered patterns such as vines, field, forage and other plant crops intended to provide food or fiber. As a result, row/field crops are generally defined in this report to include commodities such as outdoor vegetable and flower crops planted to allow tilling/cultivation by mechanized equipment (row crops), as well as grains and silage used primarily for animal feed (field crops).

ACRONYMS AND ABBREVIATIONS

ºF	degrees Fahrenheit
A-70	Limited Agriculture (zoning)
AMSL	above mean sea level
APN	Assessor's Parcel Number
AWM	Department of Agriculture, Weights and Measures (County of San Diego)
CDC	California Department of Conservation
CEQA	California Environmental Quality Act
DU	dwelling unit(s)
DWR	California Department of Water Resources
ESA	Environmental Site Assessment
FMMP	Farmland Mapping and Monitoring Program
HOA	Homeowner's Association
I-	Interstate
LARA	Local Agricultural Resource Assessment
LBZ	Limited Building Zone
MUP	Major Use Permit
NPDES	National Pollutant Discharge Elimination System
NRCS	U.S. Natural Resources Conservation Service
PACE	Purchase of Agricultural Conservation Easement
PDS	Planning & Development Services (County of San Diego)
RL	Rural Lands
RMWD	Rainbow Municipal Water District
ROW	right-of-way
SCS	U.S. Soil Conservation Service
SDCWA	San Diego County Water Authority
SF	square foot (or feet)
SR	State Route or Semi-Rural (zoning)

ACRONYMS AND ABBREVIATIONS (cont.)

TM	Tentative Map
USDA	U.S. Department of Agriculture
VR	Village Residential
ZOI	Zone of Influence

EXECUTIVE SUMMARY

As outlined below and in the main body of this report, the proposed Ocean Breeze Ranch Project (Project or Proposed Project) site has supported relatively extensive historic and recent agricultural operations (with approximately 378.5 acres under cultivation in 2017). In December 2017, however, approximately 975.5 acres (70 percent) of the site was burned in the Lilac Fire, including most areas under cultivation at that time. Specifically, all active on-site agricultural uses were burned in the Lilac Fire, except for approximately 56 acres of oat hay cultivation in the southeastern corner of the site. While all on-site agricultural operations were terminated after the Lilac Fire, the site is still considered currently (up to December 2017) active for agriculture in this report, with updates to reflect the previous (pre-burn) and present (post-burn) on-the-ground conditions provided where applicable.

The Proposed Project includes an approximately 1,402.5-acre site in the unincorporated community of Bonsall. The Project site is located approximately 0.3 mile west of Interstate 15 (I-15) and 0.4 mile south of State Route (SR) 76 at its closest points. Principal site access is from I-15, SR 76, Old Highway 395 and West Lilac Road.

The Proposed Project consists of a residential community and a separate equestrian facility, with 396 single-family lots and related improvements including roads, utilities and grading. The residential development is divided into three distinct planning areas and one separate hillside estate parcel, with the majority of the development footprint in Planning Areas 1 and 2 located in the western portion of the site, and larger lots in Planning Area 3 and the hillside estate parcel located in the eastern site area. Proposed development also includes related uses and facilities such as water/wastewater systems, equestrian areas, access roads, and open space/parks. The equestrian facility encompasses an existing horse ranch which has been operating since the mid-1980s, with the proposed (non-agricultural) equestrian uses representing a net reduction in the associated area used historically for horse ranching.

Approximately 833 acres of the Project site would be preserved as permanent biological open space through dedication of one or more easements, including substantial portions of the eastern, south-central, and southwestern Project site. Additional proposed on-site easements are associated with equestrian uses, limited use easements located in portions of Planning Area 3, and a number of drainage-related easements.

The Project site also includes an approximately 32.2-acre Remainder Parcel in the southeastern property corner that is not part of the Proposed Project Development. As a result, no impacts to agricultural resources are assessed for this parcel under the Proposed Project.

The Proposed Project includes a 28.3-acre Homeowner's Association (HOA) lot (Lot DD) located in the southeastern portion of the site. While no Project-related development/disturbance is proposed on this lot, the Project design also does not include any type of related set aside for agricultural use. As a result, this Lot would be subject to Project-related agricultural resource impacts under appropriate conditions.

The Proposed Project includes approximately 2.2 acres of off-site improvements associated with minor modifications to West Lilac Road in the southeastern site area, small portions of the proposed access road in the northeastern portion of the site, and roadway improvements near the West Lilac Road/Camino del Rey intersection southwest of the Project site.

The Project site is located within a semi-rural area encompassing a mix of urban development, agriculture, and open space (with portions of several nearby uses affected by the noted 2017 Lilac Fire).

No active Williamson Act contract parcels are located on-site, although two such parcels and associated (overlying) agricultural preserves are located within the Project Zone of Influence (ZOI) at distances of approximately 0.4 to 0.7 mile from the closest site boundary. A number of additional Williamson Act contract lands and agricultural preserves are located within the Project cumulative study area (but outside the ZOI), at distances of 1.25 miles or more from the Project site.

Pursuant to applicable County Guidelines, identified agricultural resources within the Project site encompass approximately 797.9 acres. Specifically, on-site agricultural resources include areas used currently and/or historically for agricultural operations, as well as applicable areas of California Department of Conservation (CDC)-designated Important Farmlands. The County has approved a local methodology that is used to determine the importance of agricultural resources in the unincorporated area of San Diego County, known as the Local Agricultural Resource Assessment (LARA) Model. The LARA Model takes into account six factors, including water, climate, soil quality, surrounding land uses, land use consistency, and slope, in determining the importance of agricultural resources. Based on evaluation under the described LARA Model, the Project site was determined to be an "important agricultural resource."

The Proposed Project would result in significant direct impacts to approximately 244 acres of on- and off-site important agricultural resources, based on the results of the LARA Model analysis and related discussions described in Section 2.0 of this report. Accordingly, Pursuant to County Agricultural Guidelines, the Project applicant would be required to either: (1) acquire 244 acres of off-site mitigation credits via the County PACE Program; or (2) acquire other (non-PACE) off-site agricultural lands or easements totaling 244 acres that conform with the County Agricultural Guidelines (with County approval). With the described mitigation, direct Project-related impacts to on- and off-site agricultural resources would be reduced below a level of significance.

Based on the analysis provided in Section 3.0 of this report, the Proposed Project would not result in any significant impacts to existing or potential future off-site agricultural uses, including orchards, nurseries, greenhouses, row/field crops, vineyards, or Williamson Act contract lands. The Project would also be consistent with applicable General Plan/Community Plan goals and policies related to agriculture, and would not result in any significant cumulative impacts to CDC candidate soils, existing agriculture, Williamson Act contract lands, or farm sites (as described in Sections 4.0 and 5.0 of this report).

1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

Based on County of San Diego (County) scoping requirements (County 2017a, 2015a) and criteria contained in the County *Guidelines for Determining Significance and Report Format and Content Requirements, Agricultural Resources* (Agricultural Guidelines, County 2015b), the purpose of this report includes the following specific goals:

- Identify direct Project impacts to agricultural resources, as well as Design Considerations and/or mitigation measures that would avoid or minimize significant adverse effects from implementation of the Proposed Project.

- Determine potential indirect impacts to surrounding active agricultural operations and/or Williamson Act contract lands/zoning from implementation of the Proposed Project.

- Determine the significance of cumulative impacts to agricultural resources and existing operations from the implementation of identified cumulative projects (including the Proposed Project).

1.2 PROJECT LOCATION AND DESCRIPTION

Project Location

The proposed Ocean Breeze Ranch Project (Proposed Project or Project) includes an approximately 1,402.5-acre site in the unincorporated community of Bonsall in San Diego County (Figures 1 and 2). The site includes all or part of 12 individual parcels, with the following Assessor's Parcel Numbers (APNs): 124-150-28-00, 124-150-34-00, 124-150-35-00, 125-080-21-00, 125-131-48-00, 125-131-49-00, 125-131-54-00, 126-060-78-00, 127-191-20-00, 127-230-59-00, 127-271-01-00, and 127-271-02-00 (refer to Figure 2).

The Project site is located approximately 0.3 mile west of Interstate 15 (I-15) and 0.4 mile south of State Route (SR) 76 at its closest points. Principal site access is from I-15, SR 76, Old Highway 395 and West Lilac Road, with a number of smaller local roadways also providing access (e.g., Dulin Road, Dulin Ranch Road, Via Ararat Drive, Mountain View Road, and Camino Del Cielo, refer to Figure 2).

Project Description

As shown on Figure 3a, the Proposed Project consists of a residential community and a separate equestrian facility (Equestrian MUP), with 396 single-family lots and related improvements including roads, utilities and grading. The residential development is divided into three distinct planning areas in the western and eastern portions of the site, along with one hillside estate residential parcel located in the southeastern site corner. These areas, as well as associated lot locations, configurations, and disturbance (development) area limits, are shown on Figures 3a through 3d. The proposed development also incorporates a number of related amenities and facilities, including equestrian areas, access roads, and open space/parks. These proposed uses are summarized below along with additional Project-related actions, and off-site improvements.

Residential Development

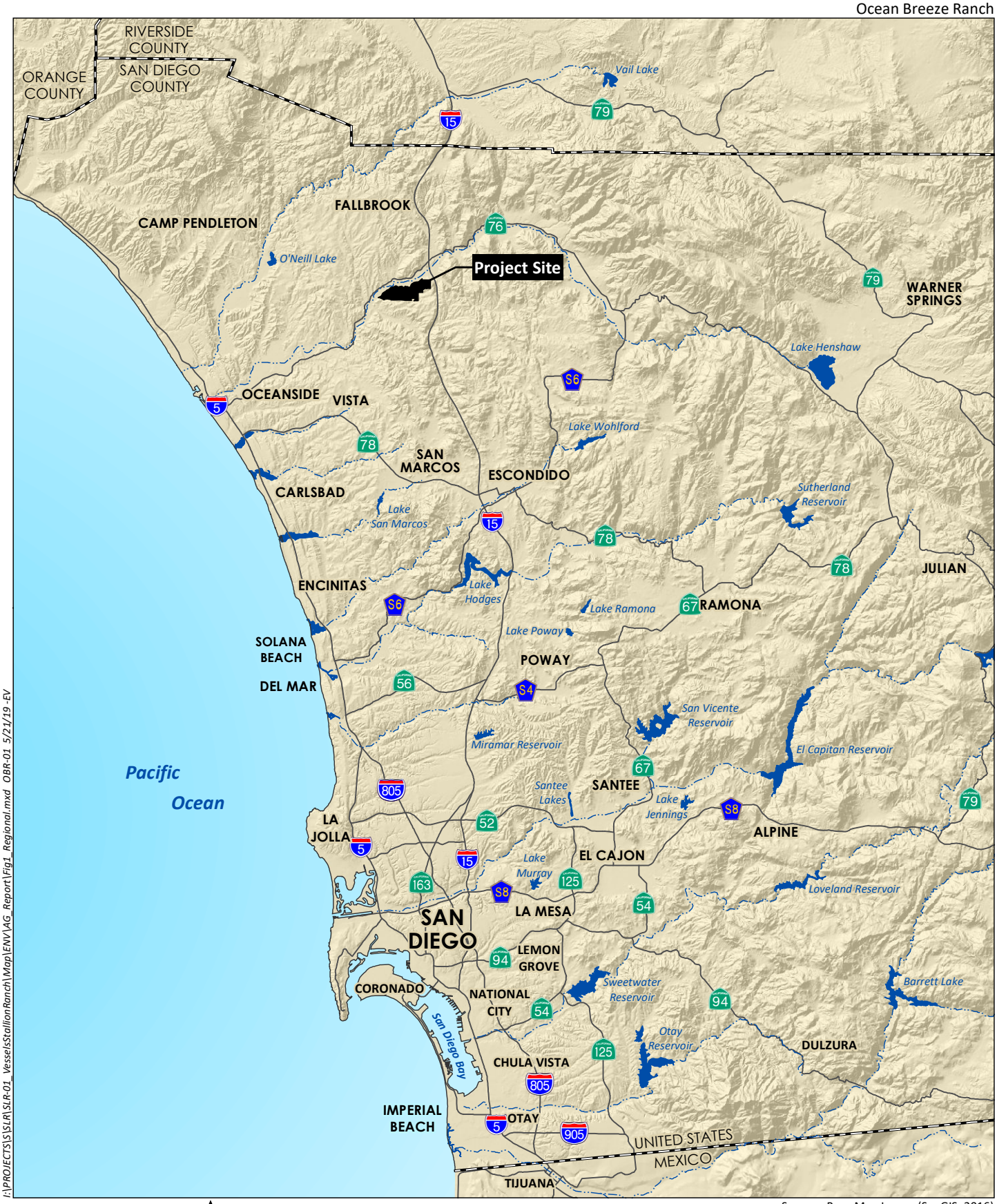
Proposed residential development includes a total of 396 residential lots and associated uses such as utilities, access roads, parks and grading, within an area of approximately 322 acres. As depicted on Figures 3a through 3d, proposed residential sites include higher-density areas in Planning Areas 1 and 2 located primarily in the western portion of the site, and larger lots in Planning Area 3 and the hillside estate parcel in the eastern site area. Specifically, residential areas in Planning Areas 1 and 2 would include 381 lots (144 in Planning Area 1 and 237 in Planning Area 2), with associated lot sizes ranging from approximately 4,700 to 23,370 square feet (SF; 0.11 to 0.54 acre). Proposed residential development in the western site area also includes water/wastewater systems and two sewer pump stations, with associated connections to existing adjacent (off-site) Rainbow Municipal Water District (RMWD) facilities. Additional uses in the western residential areas include seven park sites totaling 15.71 acres and 13 Homeowner's Association (HOA) Open Space lots totaling 22.67 acres, as well as trail segments that extend within the project site to provide internal pedestrian access and a connection to the future off-site San Luis Rey River Trail alignment (which would be constructed by the County as a separate project).

Proposed residential development in the eastern portion of the site (Planning Area 3) includes 13 lots with sizes ranging from approximately 5 to 7.24 acres, as well as one 19.1-acre estate parcel. In addition, a single 24.24-acre estate residential lot (Lot 396) is proposed in the southeastern portion of the site, near the existing (off-site) Sullivan Middle School property (refer to Figure 3a). Water service in the eastern site area would be provided by the RMWD via connections to existing off-site facilities (as noted for the western residential areas), while wastewater disposal would be provided by septic systems located on the individual residential lots.

The developable portions of all residential lots would encompass typical ornamental landscaping, as well as requirements/opportunities for uses providing benefits such as enhancement of local rural/agricultural character and/or screening/blending from/with off-site agricultural uses. Specifically, "screen fence", "buffer plantings" and brush management zones would be installed along applicable planning area and Project site boundary locations, including portions of Planning Area 3 and the eastern property boundary along the estate residential lot in the southeastern portion of the site (Lot 396, with these efforts to be required as part of the approved Project Landscape Plan), and street/edge plantings would be used throughout the developed portions of the site (refer to the Project Landscape Concept Plan in Appendix D). These types of uses would help to provide enhanced rural/agricultural character, screening and/or blending for applicable areas as noted above and described in Section 3.0. Additionally, while not proposed as part of the Project design or required as mitigation/design considerations to address potential interface conflicts with off-site agricultural operations (refer to Section 3.0), uses such as small, private orchards, vineyards and gardens would be allowable on applicable (developable) portions of residential lots. Where implemented by individual property owners, these types of uses would also potentially enhance rural/agricultural character and/or provide screening and blending by creating (or enhancing) vegetation areas and/or buffers within/between on-site residential development and off-site agricultural uses.

Equestrian Areas

Existing equestrian uses would be formalized under the Proposed Project within an associated Equestrian MUP, see Figure 3a). The Equestrian MUP includes approximately 203.6 acres in the north-central portion of the site, including 112.5 acres of pasture areas, 19.4 acres of existing/proposed



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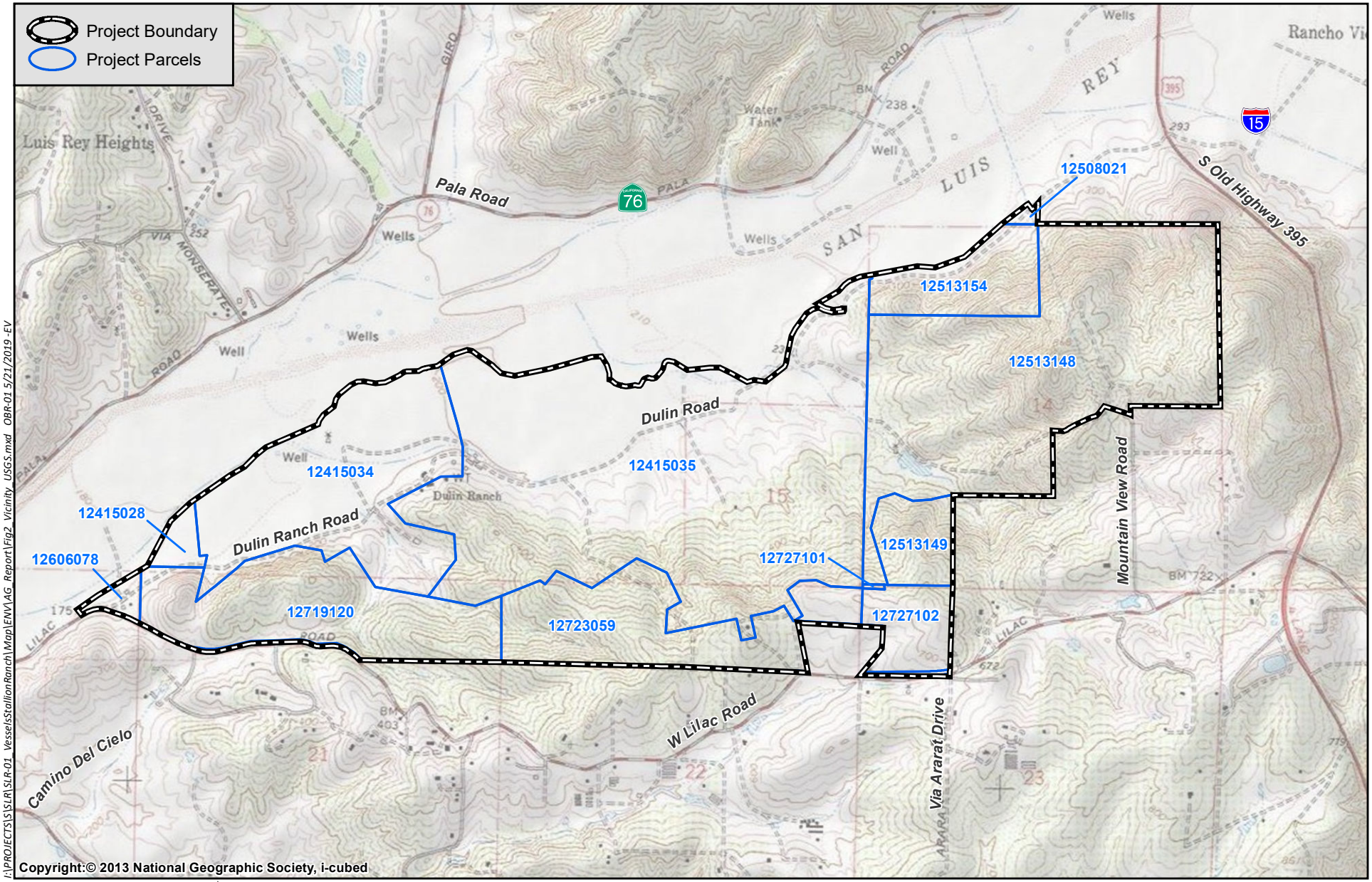
0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 1



HELIX Environmental Planning

Project Vicinity Map (USGS Topography)

Figure 2

Ocean Breeze Ranch

- Project Boundary
- Well Site
- Project Development Area
- Biological Open Space
- Equestrian MUP
- Impact Neutral/Utility Easements to Remain
- Remainder Parcel
- HOA Lot DD
- Interim Evacuation Route (Follows Existing Roads)
- Pedestrian Trail Easement (on Existing Dirt Road)

Camino del Rey Offsite Impacts

San Luis Rey River

Equestrian MUP

Interim Evacuation Route (Follows Existing Roads)

Planning Area 2 (Lots 145 - 381)

Planning Area 1 (Lots 1 - 144)

Planning Area 3 (Lots 382 - 395)

Hillside Estate Parcel (Lot 396)

Remainder Parcel

HOA Lot DD

Pedestrian Trail Easement (on Existing Dirt Road)

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0 1,200 Feet

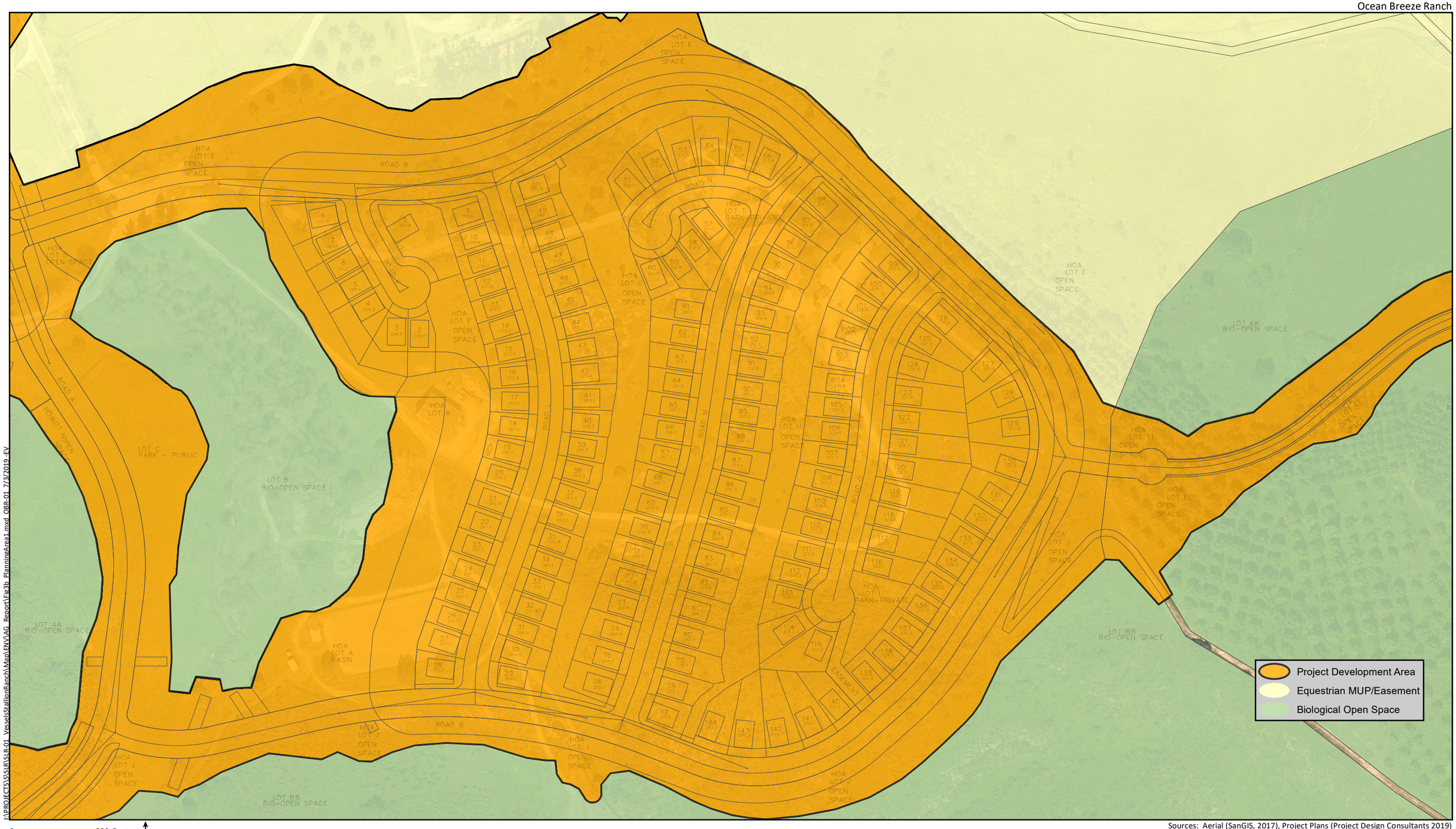
Source: Aerial (SanGIS, 2017)

HELIX Environmental Planning

Site Plan

Figure 3a

Ocean Breeze Ranch



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0 200 Feet

Sources: Aerial (SanGIS, 2017), Project Plans (Project Design Consultants 2019)

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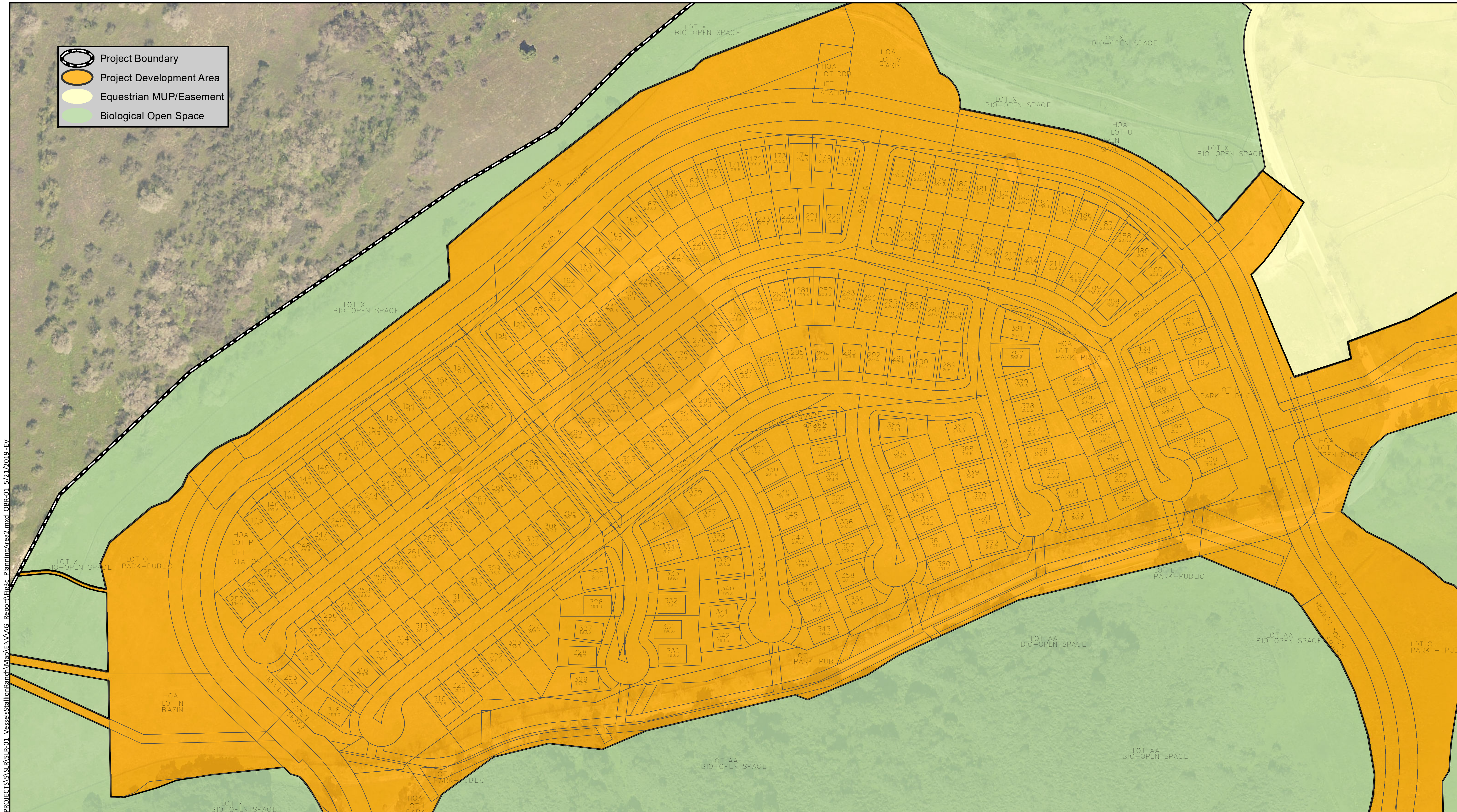
Planning Area 1

Figure 3b



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Sources: Aerial (SanGIS, 2017), Project Plans (Project Design Consultants 2019)

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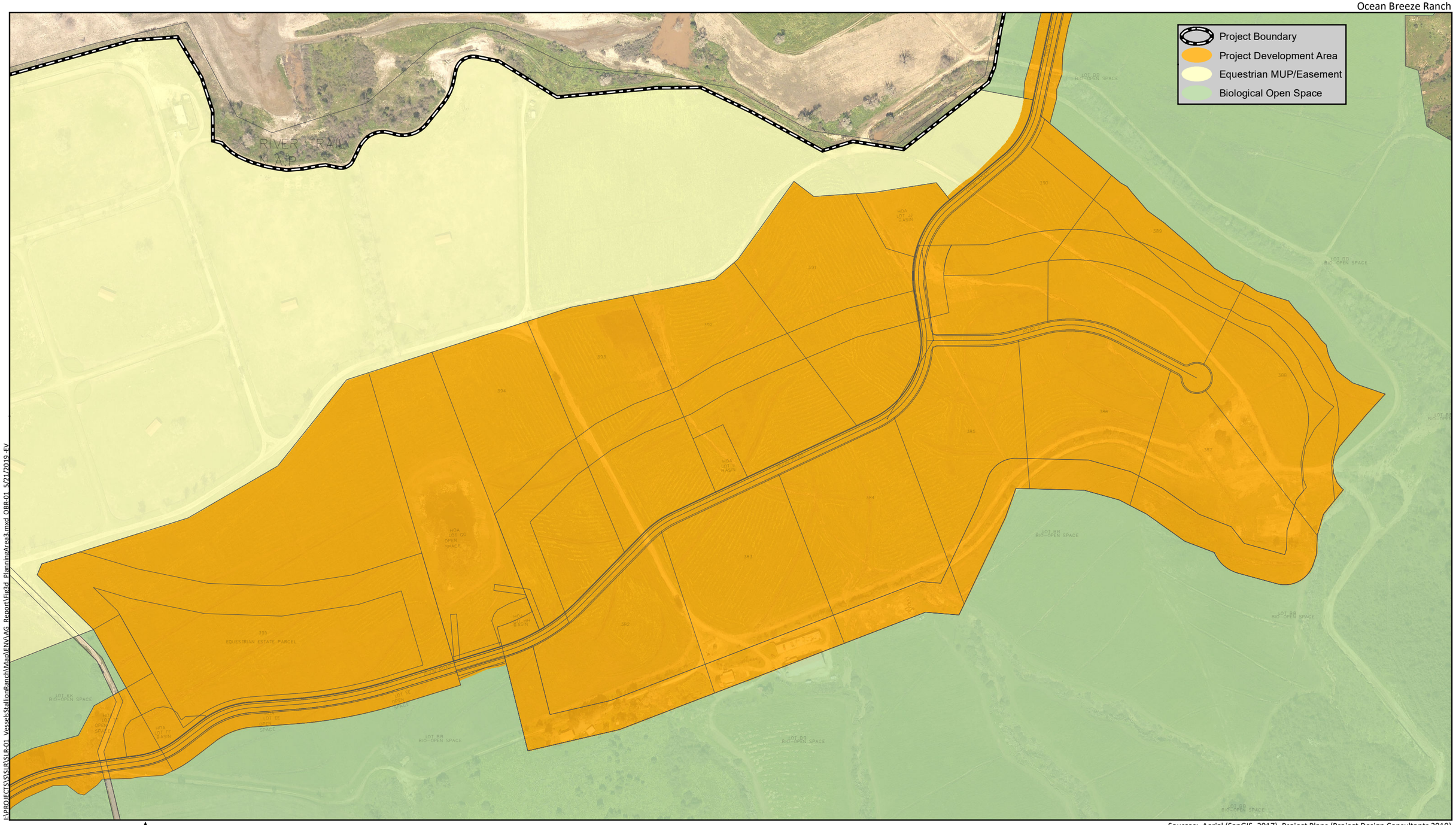
Planning Area 2

Figure 3c

Ocean Breeze Ranch



0 300 Feet

Sources: Aerial (SanGIS, 2017), Project Plans (Project Design Consultants 2019)

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Planning Area 3

Figure 3d

improved areas, and 71.7 acres of other existing uses such as a pond and areas of non-native grassland habitat and previously disturbed sites. The noted improvements include barns, stables, exercise and veterinary facilities, and a small office. The proposed Equestrian MUP encompasses an existing horse ranch which has been operating since the mid-1980s, with the proposed (non-agricultural) equestrian uses representing a net reduction in the associated area used historically for horse ranching. A limited use easement would also be recorded over pastures within the Equestrian MUP to retain the associated biological value for wildlife (such as foraging birds). This easement would preclude future development in the pastures. The described equestrian activities would be conducted as a private breeding operation, similar to current use, and would not include open boarding or other publicly available equestrian services. Based on direction from County staff, the California Environmental Quality Act (CEQA) Baseline for the proposed Project incorporates the Equestrian MUP area. Specifically, the Equestrian MUP area represents an existing "on-the-ground" condition, with the current uses to be retained under the proposed design. As a result, no impacts to agricultural resources are assessed for the Equestrian MUP area under the Proposed Project.

Internal Roadways and Access

The Proposed Project design includes a network of internal access roads within the described disturbance area, as shown on Figure 3a. Specifically, this would encompass public streets in the western residential sites (Planning Areas 1 and 2), including a "backbone" loop road connecting to West Lilac Road at two ungated locations, and additional roads to provide access to residential lots and other facilities. Proposed access roads in the eastern residential sites (Planning Area 3 and Lot 396 in the southeastern site corner) would be private, and would include a gated connection to Dulin Road near the northeastern site boundary, and a gated connection to West Lilac Road from Lot 396.

In addition to the noted public/private roadways, the Project design also includes an interim secondary emergency access/evacuation route located within the Equestrian MUP. This emergency access/ evacuation route would utilize existing roads within the Equestrian MUP and would ultimately connect to the proposed extension of Dulin Road within Planning Area 3 (refer to Figure 3a).

Open Space/Easements

Approximately 833 acres of the Project site would be preserved as permanent biological open space through dedication of one or more easements, including substantial portions of the eastern, south-central, and southwestern Project site (refer to Figure 3a). Additional proposed easements include: (1) a limited use easement over pasture areas within the Equestrian MUP area as described above; (2) approximately 22.7 acres of limited use easements associated with residential lot numbers 391 through 395 and the open space lot in Planning Area 3; and (3) 10 drainage-related easements totaling approximately 11.7 acres. The described limited use easements in Planning Area 3 would designate the associated areas as non-buildable space, with related uses limited predominantly to equestrian activities such as conversion to pasture. Because agricultural uses would be specifically precluded within the Planning Area 3 easements, these areas would be subject to Project-related agricultural resource impacts under appropriate conditions, as described in Section 2.3. Accordingly, the limited use easements are not depicted on Figure 3a (or other graphics in this report), and are included within the Project Development Area designation shown for Planning Area 3 on Figures 3a and 3d.

Additional areas of open space associated with the Proposed Project include the previously described parks, trails, and HOA Open Space lots that encompass uses such as common area landscaping.

Remainder Parcel

As shown on Figure 3a, the Project site includes an approximately 32.2-acre Remainder Parcel in the southeastern site corner that is not part of the Proposed Project development. The Remainder Parcel is proposed to be sold to the school district for potential future expansion of school facilities. Depending on the results of this proposed sale, the noted parcel may be subject to future development by the school district, with environmental (and related) impacts from any such development to be evaluated separately by the district. Based on the described conditions, the Remainder Parcel is not part of the Proposed Project development and no related impacts to agricultural resources are assessed in this analysis.

HOA Lot DD

The Proposed Project includes a 28.3-acre HOA lot (Lot DD) located in the southeastern portion of the site, adjacent to the Remainder Parcel (and the off-site Sullivan Middle School campus) on the west (Figure 3a). While no Project-related development/disturbance is proposed on this lot, the Project design also does not include any type of related set aside for agricultural use. As a result, HOA Lot DD would be subject to Project-related agricultural resource impacts under appropriate conditions, as described in Section 2.3.

Additional Project Elements/Actions

Implementation of the Proposed Project, including the Project elements described above, would include the following actions: (1) a Tentative Map (TM) to accommodate the proposed development (refer to Section 1.4.4); (2) a Major Use Permit (MUP) for the proposed residential areas; (3) an MUP for the proposed equestrian facilities; and (4) final engineering permits (e.g., grading permits, improvements plans) and building permits associated with the TM and MUPs.

Off-site Improvements

The Proposed Project includes approximately 2.2 acres of off-site improvements associated with minor modifications to West Lilac Road in the southwestern site area (.07 acre), small portions of the proposed access road in the northeastern portion of the site (0.81 acre), and the road improvements southwest of the site near the West Lilac Road/Camino del Rey intersection (1.3 acres, refer to Figure 3a). Additional proposed off-site development activities are limited to providing other connections to existing roads and utilities within associated existing right-of-way (ROW) boundaries.

1.3 ANALYSIS METHODS

Methods used in the analysis of agricultural resources and potential Project-related effects involved a variety of data sources and evaluation techniques as summarized below. These data sources and methods were chosen based on direction in the County Agricultural Guidelines (2015b), as well as coordination with County planning and technical staff.

- Review/use of the following information sources: (1) current and historical aerial photographs from sources including the Project Phase I ESA Report dated 2014, 2012, 2002, 1995, 1994, 1984, 1974, 1964, 1953, 1946, 1939 and 1938 (GeoSoils, Inc. [GeoSoils] 2016; and Google Earth 2014, refer to Appendix C); (2) the Project Tentative Map and Land Title Survey (Project Design Consultants [PDC] 2019, 2015); (3) pesticide use records for the site obtained from the

San Diego County Department of Agriculture, Weights and Measures (AWM; County 2016a); (4) California Department of Conservation (CDC) Farmland Mapping and Monitoring Program (FMMP) Important Farmland Maps, CDC 2016a); (5) CDC FMMP Williamson Act Contract records (CDC 2016b); (6) local planning documents (including the San Diego County General Plan [2011a], San Diego County Zoning Ordinance, and Bonsall Community Plan [2011b]); (7) the most currently available (2017 and 2016) AWM Crop Statistics and Annual Reports (County 2018b, 2017b), and analysis of Economic Contribution of San Diego County Agriculture (County 2017c); (8) project files from San Diego County (for cumulative analyses); (9) climatic data bases (e.g., the Generalized Western Plantclimate, or "Sunset" Zones); (10) soil data bases (e.g., the U.S. Soil Conservation Service [SCS] San Diego Area Soil Survey [SCS 1973], and Natural Resources Conservation Service [NRCS] 2007); and (11) CDC FMMP Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance, San Diego County (CDC 2016c).

- Reconnaissance of agricultural and other land uses within the Project site and the identified agricultural cumulative study area (as described in Section 4.0) by vehicle and on foot, on August 4 and 6, 2016.

- Completion and interpretation of a Project-specific Local Agricultural Resource Assessment (LARA) Model, pursuant to the County Agricultural Guidelines, to identify direct onsite impacts. Specifically, the LARA Model involves the consideration of water, climate and soil quality factors (required factors), as well as surrounding land uses, land use consistency and topography (complementary factors), to determine if the Project site is an "important agricultural resource," as defined in the referenced Guidelines.

- Evaluation of potential indirect effects relating to potential conflicts with surrounding agricultural uses identified within the Project Zone of Influence (ZOI), including the conversion of farmland operations or designations (e.g., Williamson Act Contract lands or agricultural zoning) to non-agricultural use, that may result from project-related "changes in the environment." Specifically, such changes may encompass physical effects from the proposed development (e.g., air or water contamination), restrictions on agricultural uses such as chemical pesticide/ herbicide applications in surrounding areas due to the development of residential and related uses within the Project site, and the resultant development pressures to convert existing off-site farmlands to non-agricultural uses.

- Assessment of potential impacts from the cumulative loss of existing agricultural resources relative to the agricultural cumulative study area and the associated list of projects (including the Proposed Project).

- Identification of Project Design Considerations and mitigation measures that would avoid or minimize significant adverse effects from implementation of the Proposed Project.

1.4 ENVIRONMENTAL SETTING (EXISTING CONDITIONS)

As outlined below in Section 1.4.2, the proposed Project site has supported relatively extensive historic and recent agricultural operations. Recent agricultural uses encompassed approximately 378.5 combined acres of avocado orchards, cut flowers and oat hay (with more extensive previous uses including avocadoes, tomatoes and various other row/field crops). In December 2017, however, approximately 975.5 acres (70 percent) of the site and several adjacent areas were burned in the

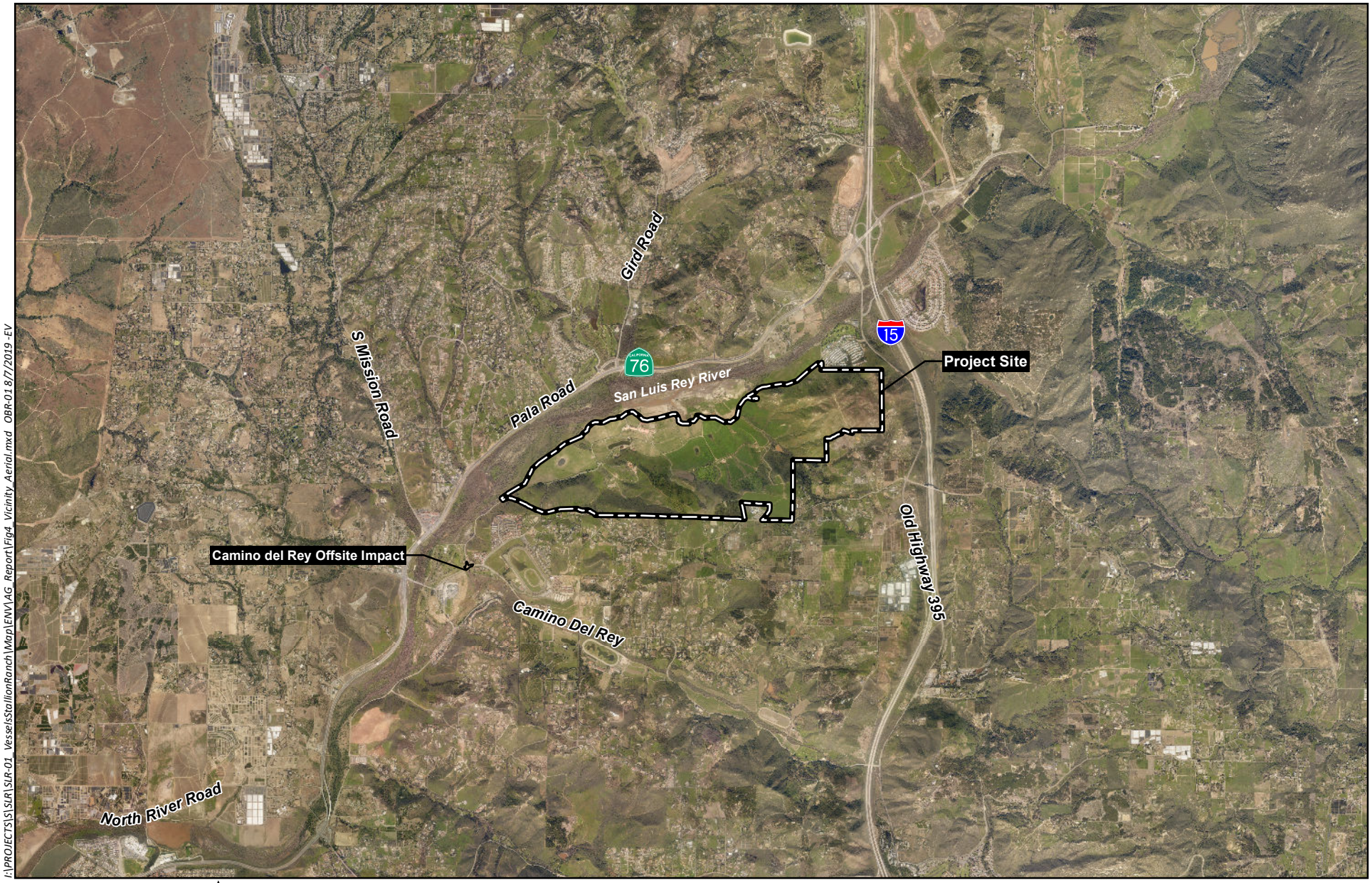
Lilac Fire, including most on-site areas under cultivation at that time. Specifically, all recent on-site agricultural uses were burned in the Lilac Fire, except for approximately 56 acres of oat hay cultivation in the southeastern corner of the site. Additionally, much of the current equestrian-related facilities in the northwestern and north-central portions of the site (including pastures, barns and the ranch house/ office structure), as well as native habitat areas along the eastern-most site boundary, were not impacted by the Lilac Fire. All on-site agricultural operations were terminated after the described Lilac Fire (Bennett 2018), with descriptions of previous (pre-burn) and present (post-burn) on-the-ground conditions provided below where applicable.

1.4.1 Regional Context

The Project site is located south of SR-76 and west of I-15 in a semi-rural area encompassing a mix of urban development, agriculture, and open space (Figure 4), with portions of the following nearby uses affected by the 2017 Lilac Fire described above in Section 1.4. Nearby land uses include: (1) The San Luis Rey River and SR 76 corridors to the north and west; (2) the I-15 corridor to the east; (3) a mix of low- to medium-density residential, commercial, school, recreational (e.g., golf courses), and agricultural uses to the north, west and south; (4) open space, agriculture and minor related uses (e.g., residential) uses to the east (east of I-15); (5) higher-density residential and related uses further to the north (Fallbrook) and south (Vista); and (6) more extensive open space further to the east and west. Local agricultural sites include relatively large areas of primarily avocado orchards (with some citrus and other crops), nurseries, row/field crops, and (minor) greenhouses and vineyards in nearby areas to the east, south and southeast; and orchards (primarily avocados as previously noted), row/field crops and nurseries to the north (north of SR 76 and the San Luis Rey River). More distant agricultural uses include large areas of orchards (as previously described), nurseries, and row/field crops to the south and southwest (along with minor vineyards and greenhouses); and relatively large areas of predominantly orchards and nurseries to the north (Figure 5). Local nursery operations include uses such as decorative crops (e.g., dollar eucalyptus and cut flowers), ornamental landscaping and fruit trees, as well as lesser amounts of succulents and herbaceous crops. Most of the nursery sites encompass open-air container plants, in-ground plantings, and/or enclosed structures, with the latter facilities ostensibly used for temperature- and/or drought-sensitive varieties. A number of the local row/field crop sites also include relatively extensive areas of cut flowers, as well as strawberries, tomatoes and other crops. Additional discussion of off-site agricultural resources in the Project site vicinity and more distant areas is provided below in Section 1.4.3.

Local elevations range from approximately 120 feet above mean sea level (AMSL) along portions of the San Luis Rey River to the west, to over 1,100 feet AMSL in upland areas to the north and northwest. The Project site region is characterized by a Mediterranean climate, with moderate year-round temperatures and relatively low precipitation levels, most of which falls during the winter months. Municipal water service is available at the Project site and most surrounding areas (particularly the more developed portions) from the RMWD as noted in Section 1.2, with associated water lines and meters located within or adjacent to the site. The more rural outlying areas within the region likely utilize groundwater in lieu of (or to supplement) municipal service. Additionally, groundwater from three on-site wells was used for agricultural and equestrian (non-agricultural) irrigation within the site, prior to the 2017 Lilac Fire (with groundwater use from the noted wells to continue under the Proposed Project for equestrian pasture irrigation).

Soils in the Project site region are characterized by generally well- to excessively-drained loams, sandy loams and silt loams with clayey subsoils in the valleys, and coarse sandy to rocky loams overlying



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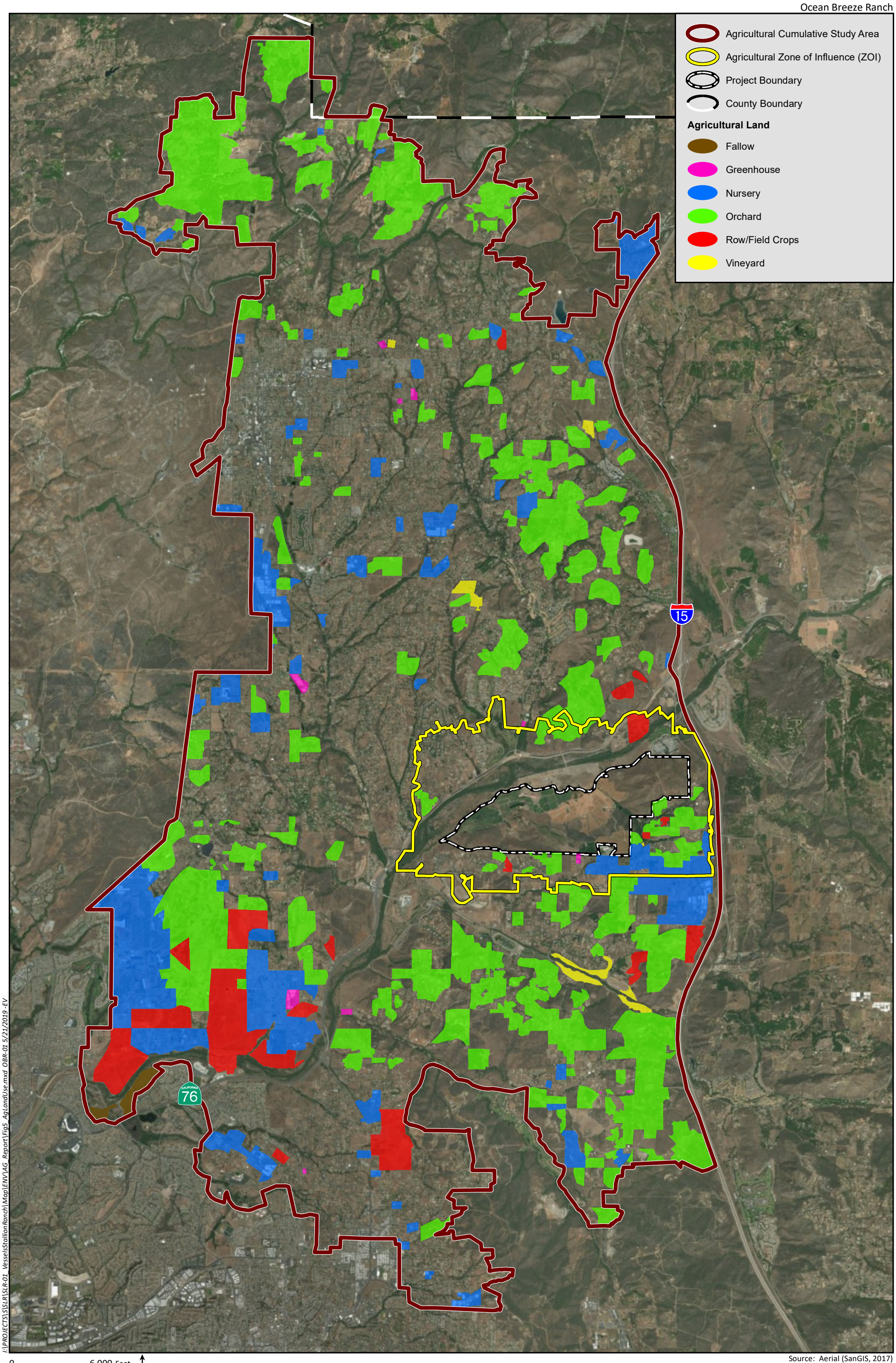
HELIX Environmental Planning

Project Vicinity (Aerial Photograph)

Figure 4

Ocean Breeze Ranch



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Source: Aerial (SanGIS, 2017)

HELIX Environmental Planning

Surrounding Agricultural Land Use

Figure 5

weathered bedrock in the upland areas. On-site soils consist primarily of moderately well- to excessively-drained sandy loams, with additional description provided below in Section 1.4.2.

As referenced above in Section 1.3, the FMMP produces Important Farmland maps and statistical data used for categorizing agricultural lands and analyzing related impacts (CDC 2016a, 2004). Agricultural lands are rated according to soil quality and irrigation status, with Important Farmland maps scheduled for update every two years based on aerial photograph review, computer mapping analysis, public input, and field reconnaissance. There are eight land use categories identified on the Important Farmland maps, including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Grazing Land, Urban and Built-up Land, Other Land, and Water (with these designations defined below in Section 1.4.2). The locations of mapped Important Farmland designations within the Project site, the associated ZOI (refer to Section 1.4.3), and the Project agricultural cumulative study area (as defined below in Section 5.0) are shown on Figure 6. As seen from this figure, the Project site region includes large and generally contiguous areas of Urban and Built-up Land and Other Land in developed and open space areas, relatively large blocks of Farmland of Local Importance and Unique Farmland associated with varied agricultural uses (refer to Figures 5 and 6), generally small and scattered areas of Prime Farmland and Farmland of Statewide Importance, and Grazing Land concentrated primarily in one large block southwest of the site. The Water designation is not mapped within the Project site or surrounding areas. Additional discussion of FMMP Important Farmland designations within the Project site and surrounding areas is provided below in Sections 1.4.2 and 1.4.3.

The majority of the Project site region is privately owned, with surrounding public lands limited primarily to a number of local parks, schools, and habitat/recreation reserves. Specifically, local public lands in the project vicinity include: (1) The Sullivan Middle School campus, located adjacent to the southern Project site boundary; (2) the Bonsall Preserve, a 27.4-acre wildlife preserve located approximately 0.75 mile west of the site (3) Bonsall Elementary School approximately 0.8 mile southwest of the Project site; (4) North County Fire Protection District Station No. 5 approximately 1.1 miles to the southwest; (5) North county Fire Protection District Station No. 2 approximately 2.75 miles to the north; (6) Live Oak Park approximately 3.7 miles to the north; (7) Ivy High School and the Fallbrook Union High School District Office approximately 3.6 miles to the northwest; (8) Dinwiddie Preserve, a 14.5-acre habitat preserve approximately 3.8 miles to the northwest; (9) the San Luis Rey River corridor adjacent or in near proximity to the northern site boundary; and (10) a Caltrans habitat mitigation parcel located adjacent to the north-central site boundary. None of the described public lands are located within the Project site, with the Sullivan Middle School campus, adjacent/nearby San Luis Rey River corridor, and Caltrans mitigation parcel located within the related ZOI.

Two Williamson Act contract parcels and two associated agricultural preserves are also located within the Project site ZOI, with these and more distant contract lands and agricultural preserves described below in Section 1.4.3.

1.4.2 Description of On-site Conditions and Agricultural Resources

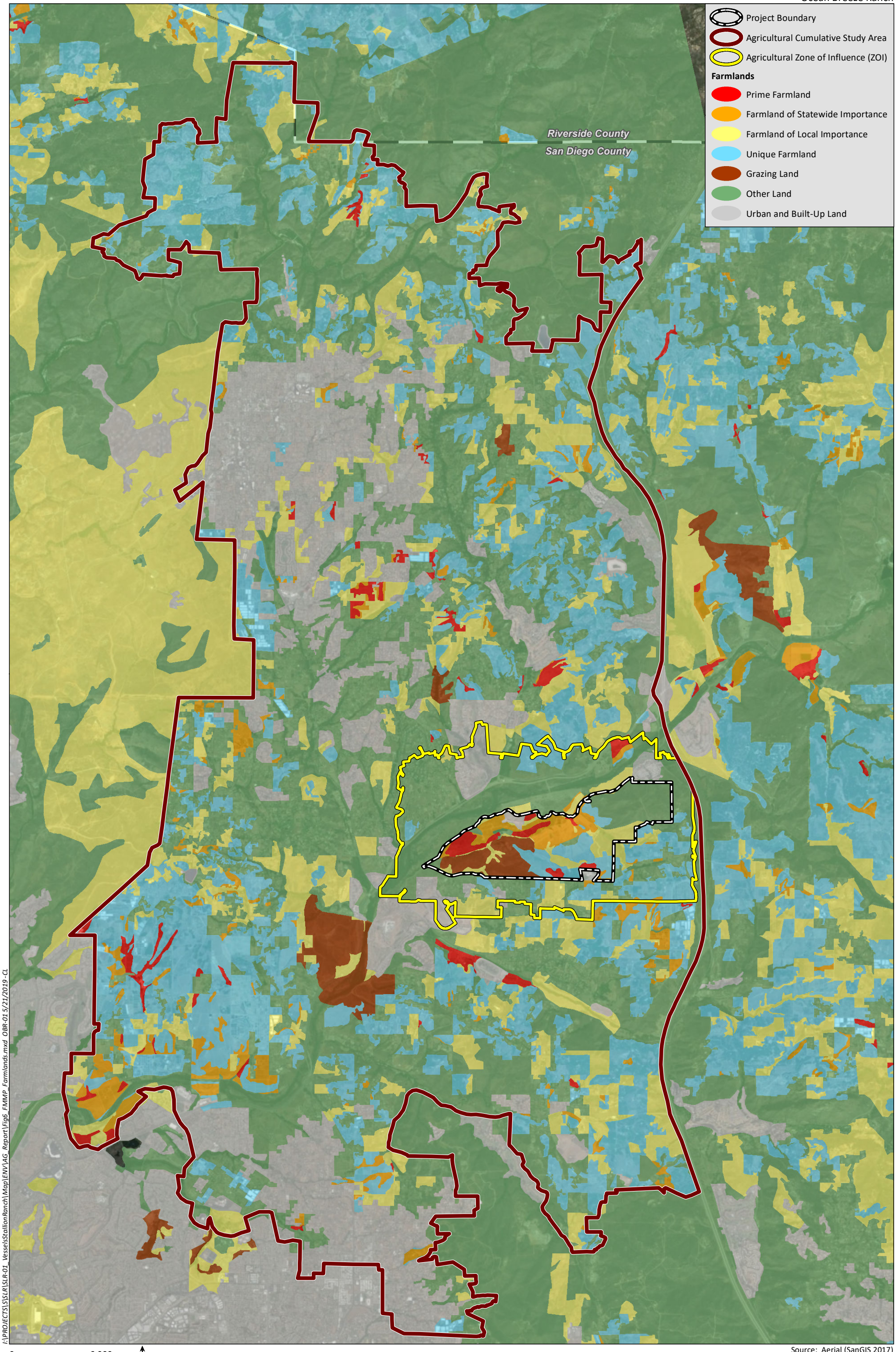
On-site topography is generally characterized by level areas in the north-central and northwestern portions of the property along the San Luis Rey River Valley, and gently to steeply sloping terrain in the remainder of the site (with these slopes mostly inclined toward the San Luis Rey River Valley). On-site elevations range from approximately 175 feet AMSL near the northwestern property boundary, to 840 feet AMSL in the northeastern portion of the site. Surface drainage within the Project site flows

primarily to the north and northwest (towards the San Luis Rey River), with some variability in direction due to local topography. On-site drainage occurs as both sheet flow and in several small, unnamed creeks. Several small surface impoundments are also present onsite, and are (or were) used as water sources for agricultural (pre-burn) and equestrian operations. Associated off-site flows continue generally west and south in the San Luis Rey River for approximately 12.5 miles before entering the Pacific Ocean in the City of Oceanside. The Project site was used for relatively extensive commercial agriculture up until the 2017 Lilac Fire (as described in Section 1.4), including approximately 68.5 acres of avocado orchards, 38 acres of cut flowers, 272 acres of oat hay (primarily for erosion control), and minor apiary (bee keeping) sites. In addition, a number of previous agricultural uses have occurred on-site, including: (1) up to several hundred acres of the site used for avocado orchards over approximately the past 75 years; (2) approximately 200 to 500 acres of various row/field crops; and (3) approximately 300 acres of tomatoes cultivated over the past eight years (and terminated in 2015, Dickson 2016). As described below in this section under History of Agricultural Use, commercial agricultural operations on the Project site were initially conducted in the latter part of the 19th Century (cattle ranching), with cultivation beginning in the 1930s and occurring more or less continuously up to the present (pre-burn) time. As previously noted, approximately 70 percent of the Project site was burned in the 2017 Lilac Fire, including all of the described recent agricultural uses except for approximately 56 acres of oat hay cultivation in the southeastern corner of the site (with all on-site agricultural uses terminated after the fire).

The determination of on-site agricultural resources was based on the following efforts/data sources: (1) site and vicinity visits conducted on August 4 and 6, 2016; (2) review of current/historic aerial photographs dated 2014, 2012, 2002, 1995, 1994, 1984, 1974, 1964, 1953, 1946, 1939 and 1938; (3) review of the previously referenced Project Phase I ESA report; (4) review of the Project Biotechnical Report (HELIX 2019); (5) review of FMMP Important Farmland maps, and CDC Prime Farmland/Farmland of Statewide Importance candidate soil listings; and (6) interviews with Project site farm managers to verify pre- and post-burn agricultural conditions (Dickson 2016, Bennett 2018).

For purposes of this analysis, and pursuant to Attachment A of the County Agricultural Guidelines (2015b), agricultural resources are generally defined to include areas that are available and viable for agricultural use, and include: (1) active agricultural operations; (2) areas designated as FMMP Prime Farmland, Farmland of Statewide Importance, Unique Farmland or Farmland of Local Importance (as defined below in this section); and (3) areas with a history of agricultural production based on data sources such as aerial photographs. Identified agricultural resources within the Project site encompass a total of approximately 797.9 acres, including areas used recently and/or historically for agricultural operations (e.g., orchards, row/field crops, cut flowers, and oat hay), as well as portions of the FMMP-designated Prime Farmland, Farmland of Statewide Importance, Unique Farmland and Farmland of Local Importance (Figures 5 through 8). Because the current/previous agricultural use areas and Important Farmland designations overlap in several portions of the site, the total on-site agricultural resource acreage is less than the sum of the individual acreages for these two categories. Specifically, the 797.9 acres of agricultural resources within the site encompass: (1) 68.5 acres of recently active (i.e., pre-burn) avocado orchards; (2) 272 acres of recently active oat hay cultivation, (3) 38 acres of recently active cut flower use; (4) 120 acres of Prime Farmland; (5) 230.5 acres of Farmland of Statewide Importance; (6) 239.91 acres of Unique Farmland; (7) 205.47 acres of Farmland of Local Importance; (8) approximately 410 acres of historical agricultural uses, including orchards and row/field crops, extending beyond the limits of current/recent agricultural use; and (9) less than 0.2 acre of recently active apiary uses, which were located within active cultivation areas (refer to the discussion of historical agricultural use below in this section for additional information). Portions of the site not

Ocean Breeze Ranch



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0 6,000 Feet

Source: Aerial (SanGIS 2017)

HELIX Environmental Planning

FMMP Important Farmland Map

Figure 6

identified as agricultural resources include: (1) areas that do not encompass active agricultural use or applicable FMMP designations, as noted above (and with no history of agricultural use); (2) developed and/or unavailable locations such as roads, structures and applicable public utility ROW areas; (3) areas with sensitive biological habitats that have never been used for agriculture; and (4) lands constrained by biological conservation easements, biological preserves, or similar regulatory or legal exclusions that prohibit agricultural use (Figure 7). The exclusion of these areas from on-site agricultural resources is due to the fact that they have not been previously used for agriculture, and/or their assumed unavailability for future agricultural use based on direction in Section 3.1.3 of the County Agricultural Guidelines and the following additional consideration (refer to Appendix A):

- The underlying soil quality in developed areas has likely been compromised through grading, compaction and/or fill placement (per the discussion in Section 3.1.3 of the County Guidelines, refer to Footnote 9), and areas within public utility easements are unavailable for current or future agricultural use.

On-site soils, Important Farmlands, agricultural history, climate and water resources associated with the Project site (and the identified 797.9 acres of on-site agricultural resources) are described below, along with Williamson Act contract lands and agricultural preserves.

Soils

Soils within the Project site and vicinity have been mapped by the NRCS (formerly the SCS, 1973). As shown on Figure 9 and Table 1, *On-site Soils, Land Capability Units, Storie Index Ratings, Crop Suitability, and Candidate Soil Status*, the Project site includes 11 distinct soil series and 28 individual soil types. The SCS soil classification system also includes assessments of Land Capability Classification and Storie Index ratings, with summary definitions provided below and on-site soil ratings included in Table 1. Ten of the identified soil types within the Project site are identified as meeting the criteria for CDC *FMMP Soil Candidate Listing for Prime Farmland and Farmland of Statewide Importance* (2016c), as depicted in Table 1. While the entire site has been mapped for topsoils as shown on Figure 9, approximately 83 acres have been developed for uses such as structures and roads, with the underlying soils likely altered or lost due to grading, compaction, and/or placement of fill.

Table 1
ON-SITE SOILS, LAND CAPABILITY UNITS, STORIE INDEX RATINGS, CROP SUITABILITY, AND CANDIDATE SOIL STATUS

Soil Type Symbol[1]	Capability Unit	Storie Index Rating/Grade	Acreage On Site	Crop Suitability	Prime/Statewide Candidate Soil?
B1C	IIIe-3	52/3	24.65	Fair for flowers	Yes
B1D2	IVe-3	39/4	7.28	Fair for flowers	Yes
C1D2	VIe-1	16/6	6.54	Fair for avocados and flowers	No
C1G2	VIIe-1	6/6	143.02	Fair for avocados	No
CmE2	VIIs-8	10/5	31.00	N/A	No
CmrG	VIIs-8	<5/6	257.06	N/A	No
FaC	IIIe-1	57/3	34.45	Good for flowers; fair for avocados, citrus, truck crops and tomatoes	Yes
FaD2	VIe-1	48/3	18.63	Fair for avocados, citrus, tomatoes, and flowers	No
FaE2	VIe-1	35/4	91.34	Fair for avocados and citrus	No
FaE3	VIIe-1	37/4	6.70	Good for tomatoes; fair for truck crops and flowers	No
FvD	IVe-1	54/3	30.77	Fair for avocados, citrus, tomatoes, and flowers	No
FvE	VIe-1	45/3	47.19	Fair for avocados and citrus	No
GoA	IIw-2	81/1	13.99	Good truck crops and flowers, fair for tomatoes	Yes
PeA	IVs-3	54/3	16.99	Fair for tomatoes, good for flowers	Yes
PeC	IVe-3	49/3	110.36	Fair for tomatoes, good for flowers	Yes
PeD2	IVe-1	43/3	6.61	Fair for tomatoes and flowers	No
RaC	IIIe-3	58/3	13.97	Fair for citrus, truck crops and tomatoes, good for flowers	Yes
RaD2	IVe-1	48/3	28.08	Fair for citrus, tomatoes and flowers	No
RcD	IVe-1	28/4	2.81	Fair for citrus, tomatoes and flowers	No
Rm	VIIIe-4	<10/6	33.18	N/A	No
StG	VIIIe-1	<10/6	31.19	N/A	No
TuB	IVs-4	39/4	135.80	Good for avocados and flowers, fair for truck crops	Yes
VaA	I-1	90/1	96.00	Good for avocados, citrus, truck crops and flowers; fair for tomatoes	Yes

Ocean Breeze Ranch

Project Boundary
Project Development Area
Project Biological Open Space
Prime/Statewide Candidate Soils
Agriculture Resource Area
Developed Areas
Easement

Camino del Rey Offsite Impacts

Camino del Rey

Scale: 1" = 200'

Flowerwood Lane
Gird Road
Monserate Hill Road
Dulin Road
South Old Highway
San Luis Rey River
76
15
Mountain View Road
Ranchos Ladera Road
West Lilac Road
Via Vera
Via Ararat Drive
Redondo Drive
Camino Del Cielo

0 1,100 Feet

N

Source: Aerial (SanGIS, 2014).

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HELIX Environmental Planning

Agricultural Resources Map

Figure 7

Ocean Breeze Ranch

Project Boundary
Areas Requiring Mitigation
Prime/Statewide Candidate Soils

Camino del Rey Offsite Impacts

Flowerwood Lane
Girard Road
Monserate Hill Road
Dulin Road
South Old Highway
San Luis Rey River
76
Mountain View Road
Ranchos Ladera Road
West Lilac Road
Via Vera
Via Ararat Drive
Redondo Drive
Camino Del Cielo

0 1,200 Feet

Source: Aerial (SanGIS, 2017)

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Areas Requiring Agricultural Mitigation

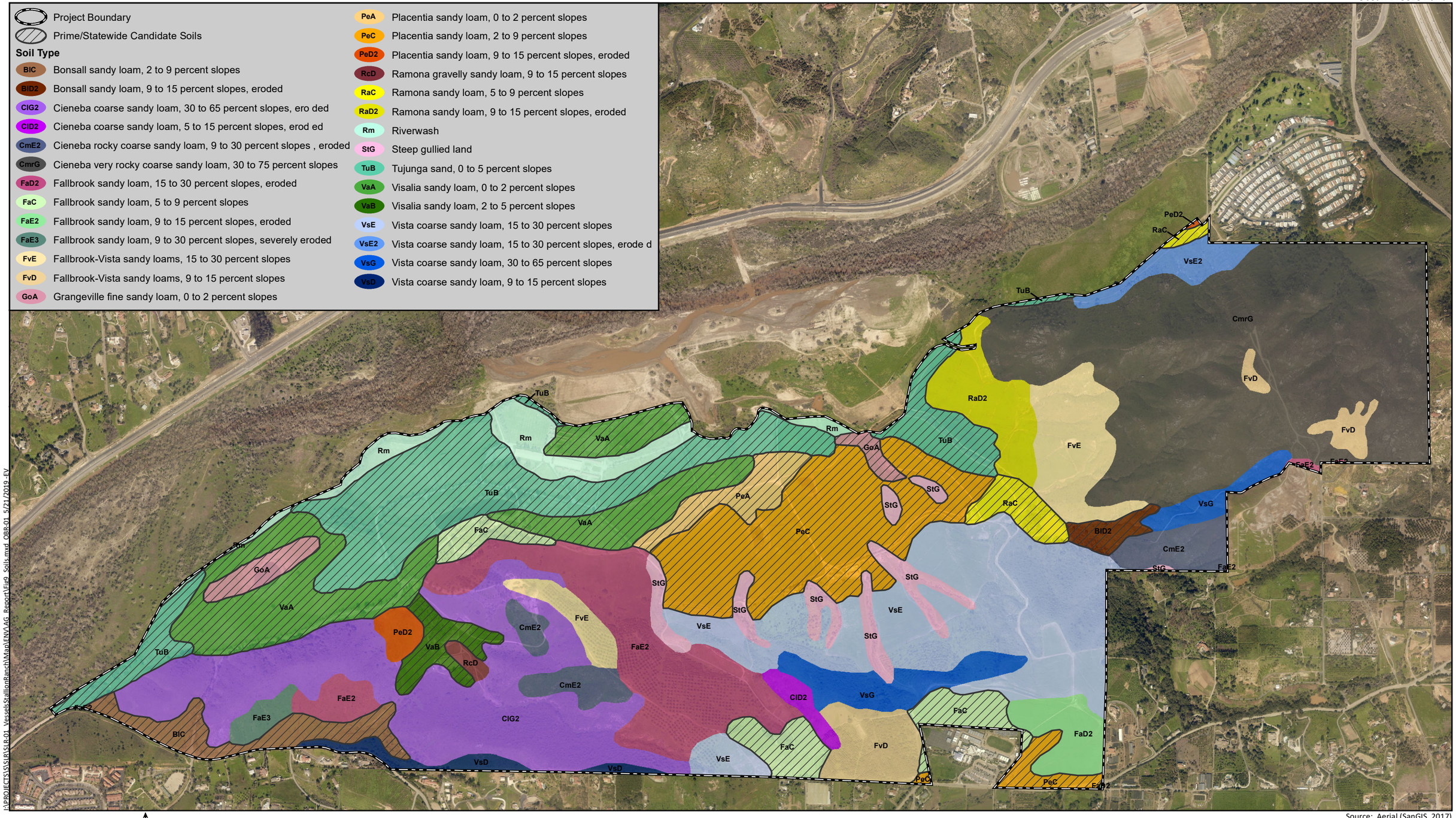
Figure 8

Ocean Breeze Ranch

- Project Boundary
- Prime/Statewide Candidate Soils

Soil Type

- BIC Bonsall sandy loam, 2 to 9 percent slopes
- BID2 Bonsall sandy loam, 9 to 15 percent slopes, eroded
- CIG2 Cieneba coarse sandy loam, 30 to 65 percent slopes, ero ded
- CID2 Cieneba coarse sandy loam, 5 to 15 percent slopes, erod ed
- CmE2 Cieneba rocky coarse sandy loam, 9 to 30 percent slopes , eroded
- CmrG Cieneba very rocky coarse sandy loam, 30 to 75 percent slopes
- FaD2 Fallbrook sandy loam, 15 to 30 percent slopes, eroded
- FaC Fallbrook sandy loam, 5 to 9 percent slopes
- FaE2 Fallbrook sandy loam, 9 to 15 percent slopes, eroded
- FaE3 Fallbrook sandy loam, 9 to 30 percent slopes, severely eroded
- FvE Fallbrook-Vista sandy loams, 15 to 30 percent slopes
- FvD Fallbrook-Vista sandy loams, 9 to 15 percent slopes
- GoA Grangeville fine sandy loam, 0 to 2 percent slopes
- PeA Placentia sandy loam, 0 to 2 percent slopes
- PeC Placentia sandy loam, 2 to 9 percent slopes
- PeD2 Placentia sandy loam, 9 to 15 percent slopes, eroded
- RcD Ramona gravelly sandy loam, 9 to 15 percent slopes
- RaC Ramona sandy loam, 5 to 9 percent slopes
- RaD2 Ramona sandy loam, 9 to 15 percent slopes, eroded
- Rm Riverwash
- StG Steep gullied land
- TuB Tujunga sand, 0 to 5 percent slopes
- VaA Visalia sandy loam, 0 to 2 percent slopes
- VaB Visalia sandy loam, 2 to 5 percent slopes
- VsE Vista coarse sandy loam, 15 to 30 percent slopes
- VsE2 Vista coarse sandy loam, 15 to 30 percent slopes, erode d
- VsG Vista coarse sandy loam, 30 to 65 percent slopes
- VsD Vista coarse sandy loam, 9 to 15 percent slopes



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Source: Aerial (SanGIS, 2017)

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HELIX Environmental Planning

Soils

Figure 9

Table 1 (cont.)
ON-SITE SOILS, LAND CAPABILITY UNITS, STORIE INDEX RATINGS,
CROP SUITABILITY AND CANDIDATE SOIL STATUS

Soil Type Symbol[1]	Capability Unit	Storie Index Rating/Grade	Acreage On Site	Crop Suitability	Prime/Statewide Candidate Soil?
VaB	IIe-1	81/1	13.90	Good for avocados, citrus, truck crops and flowers; fair for tomatoes	Yes
VsD	IVe-1	43/3	10.74	Good for avocados; fair for citrus, tomatoes and flowers	No
VsE	VIe-1	35/4	141.98	Good for avocados, fair for citrus	No
VsE2	VIe-1	33/4	13.85	Good for avocados, fair for citrus	No
VsG	VIIe-1	13/5	34.50	Good for avocados	No
		TOTAL	**1,402.58[2]**	--	--

Source: SCS (1973)
[1] Refer to Figure 9 for soil locations and Appendix B for soil type names.
[2] Totals may vary slightly from those in other portions of this report due to rounding.
N/A = No listing in the referenced Soil Survey.

Storie Index

The Storie Index designation "[e]xpresses numerically the relative degree of suitability, or value, of a soil for general intensive agriculture. The rating is based on soil characteristics only. It does not take into account other factors such as the availability of water for irrigation, climate, and distance from markets, which might determine the desirability of growing specific crops in a given locality" (SCS 1973). The four factors that represent the inherent characteristics and qualities of the soil (profile characteristics, texture of surface soil, slope, and other conditions that limit use of the soil) are considered in the index rating. The final rating can fall between 100 (excellent) and less than 10 (very poor), with Storie Index ratings for soils within the Project site shown in Table 1. The noted ratings of <5 to 90 represent Grade 1 through Grade 6 soils, with the following characterizations provided from the Soil Survey (SCS 1973): (1) Grade 1 soils (123.89 acres on site) have few or no limitations that restrict their use for crops; (2) Grade 2 soils are suitable for most crops with minor limitations and do not occur onsite; (3) Grade 3 soils 342.44 acres onsite) are suitable for a few, or special crops, with management; (4) Grade 4 soils (399.76 acres onsite) are severely limited for all crops and require special management; (5) Grade 5 soils (65.50 acres onsite) are not suited for cultivated crops but may be used for pasture or range; and (6) Grade 6 soils (470.99 acres onsite) are generally not suitable for agriculture.

Land Capability Classification

The Land Capability Classification concept is defined as follows in the *San Diego Area Soil Survey* (SCS 1973):

> Capability groupings show, in a general way, the suitability of soils for most kinds of field crops. The groups are made according to the limitations of the soils when used for field crops, the risk of damage when they are used, and the way they respond to treatment. The grouping does not take into account major and generally expensive landforming

that would change slope, depth, or other characteristics of the soils; does not take into consideration possible but unlikely major reclamation projects; and does not apply to rice, cranberries, horticultural crops, or other crops requiring special management. In the capability system, all kinds of soils are grouped at three levels: the capability class (Roman numeral designation), the subclass (letter designation), and the unit (Arabic numeral designation).

Soils are divided into Classes I through VIII, with these designations representing a range in quality from Class I soils that have few limitations for agricultural use, to Class VIII soils that have no commercial crop production capability. Capability Classes are further divided into subclasses and capability units to define limitations for agricultural use. Subclasses indicate soil limitations based on erodibility (e), water regime (w), depth and/or texture (s), and climate area (c). Capability units further reveal the main limitation for the placement of a soil into the given class and subclass. Numerals used to designate units within the classes and subclasses include: (0) sand and gravel in the substratum; (1) erosion hazard; (2) wetness caused by poor drainage or flooding; (3) slow or very slow permeability; (4) coarse texture or excessive gravel; (5) fine or very fine textured soil; (6) salts or alkali; (7) cobblestones, stones or rocks; (8) nearly impervious bedrock or hardpan; and (9) toxicity or low fertility. Capability classifications within the Project site are shown in Table 1, with the associated ratings indicating soils with few to severe agricultural limitations based on the noted criteria (SCS 1973).

FMMP Important Farmland Designations

The CDC Division of Land Resource Protection, FMMP, produces Important Farmland maps and statistical data as described in Section 1.4.1. Seven of the previously listed eight Important Farmland designations are located within the Project site, including all noted categories except Water. These designations are defined and summarized below, and are shown on Figure 6 and Table 2, *FMMP Important Farmland Designations within The Project Site, ZOI, and Agricultural Cumulative Study Area* (refer to Sections 1.4.3 and 5.0). Additionally, while not present on the Project site (or within the ZOI and cumulative study area), the Water FMMP category is defined to include water bodies with a minimum surface area of 40 acres.

Table 2
FMMP IMPORTANT FARMLAND DESIGNATIONS WITHIN THE PROJECT SITE, ZOI, AND AGRICULTURAL CUMULATIVE STUDY AREA (acres)[1]

Important Farmland Designations	Project Site	ZOI	Cumulative Study Area[2]
Prime Farmland	120.00	24.09	495.02
Farmland of Statewide Importance	230.50	61.44	1,222.67
Unique Farmland	239.91	574.97	11,715.01
Farmland of Local Importance	205.47	334.06	6,347.27
Grazing Land	230.56	0	678.58
Urban and Built-up Land	24.45	427.43	9,524.12
Other Land	351.64	2,038.88	20,994.54
TOTAL	**1,402.53[3]**	**3,460.87[3]**	**50,977.21[3]**

1 See Figure 6 for mapped locations.
2 Includes all areas within the cumulative study area and the ZOI, but not the Project site. Refer to Section 5.0 of this report for a discussion of the cumulative study area and related impact analysis.
3 Totals may vary slightly from those in other portions of this report due to rounding.

Prime Farmland

Prime Farmland includes areas that have the best combination of physical and chemical characteristics for the production of crops, including (but not limited to) moisture regime, soil temperature, pH, groundwater depth, sodium content, flooding, erodibility, permeability, rock fragment content and rooting depth. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. Prime Farmland must have been used for the production of irrigated crops at some time during the two update cycles (4 years) prior to the mapping date. Approximately 120 acres of Prime Farmland are mapped within the northern and southern portions of the site. The majority of these areas are currently used for equestrian activities in the northwestern and north-central portions of the site, with smaller areas in the north-central site and along the southern property boundary used for recent (pre-burn) oat hay, avocado, and cut flower cultivation.

Farmland of Statewide Importance

Farmland of Statewide Importance includes areas other than Prime Farmland that have a good combination of physical and chemical characteristics for the production of crops (including all characteristics listed for Prime Farmland except permeability and rooting depth). It must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date. Approximately 230.5 acres of Farmland of Statewide Importance are present onsite, with these areas recently used for oat hay cultivation in the north-central and southeastern portions of the site, as well as for current equestrian operations to the northwest.

Unique Farmland

Unique Farmland includes areas that do not meet the criteria for Prime Farmland or Farmland of Statewide Importance, but that have been used for the production of specific high economic value crops during the two update cycles prior to the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality and/or high yields of a specific crop when treated and managed according to current farming methods. Examples of such crops may include oranges, olives, avocados, rice, grapes, and cut flowers. Approximately 239.91 acres of Unique Farmland occur mainly in the northeastern and south-central portions of the Project site. Recent agricultural uses in these areas include avocados, oat hay, and cut flowers.

Farmland of Local Importance

Farmland of Local Importance includes areas other than Prime Farmland, Farmland of Statewide Importance or Unique Farmland that are either currently producing crops, have the capability of such production, or are used for the production of confined livestock. Farmland of Local Importance may be important to local economies due to its productivity or value, and is defined by each county's local advisory committee and adopted by its Board of Supervisors. For San Diego County, the definition of Farmland of Local Importance is given by the CDC (2007) as:

> Land that meets all the characteristics of Prime and Statewide, with the exception of irrigation. Farmlands not covered by the above categories but are of significant economic importance to the county. They have a history of good production for locally adapted crops. The soils are grouped in types that are suited for truck crops (such as

tomatoes, strawberries, cucumbers, potatoes, celery, squash, romaine lettuce, and cauliflower) and soils suited for orchard crops (avocados and citrus).

Approximately 205.47 acres of Farmland of Local Importance are mapped in various portions of the Project site, with associated recent agricultural uses for oat hay and cut flowers.

Grazing Land

Grazing Land does not include areas designated as any other Important Farmland categories or lands with restrictions to livestock movements (e.g., steep slopes), and is defined to include areas "[o]n which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock" (CDC 2007a). The minimum mapping unit for Grazing Land is 40 acres. Approximately 230.56 acres of Grazing Land are mapped in the western portion of the site, with no related agricultural uses.

Urban and Built-up Land

Urban and Built-up Land includes areas used for residential, industrial, commercial, institutional, and other developed purposes. Transportation facilities (e.g., highways and railroads) and vacant (non-agricultural) areas surrounded by urban development and less than 40 acres in size are mapped as part of associated Urban and Built-up Land, while uses such as farmsteads, commercial feedlots, and poultry facilities are not included within this designation. Approximately 24.45 acres of this designation occur along the north-central property boundary, with this area including current equestrian uses.

Other Land

Areas not included in any other Important Farmland mapping category are designated as Other Land. Common examples include low density rural developments; brush, timber, wetland and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; vacant and non-agricultural areas larger than 40 acres and surrounded by urban development; and strip mines, borrow pits and water bodies smaller than 40 acres. Approximately 351.64 acres of Other Land are mapped onsite, mainly in the easternmost area, with associated recent agricultural uses limited to minor oat hay cultivation.

History of Agricultural Use

Available historic information from the Project Phase I ESA and the previous (pre-burn) site Farm Manager (Dickson 2016) indicates that portions of the site were used for cattle ranching in the late 19th Century, with cultivation of various crops beginning in the 1930s. Applicable on-and off-site agricultural uses are evaluated below in the discussion of historic aerial photographs. Specifically, this discussion encompasses photos from the Project Phase I ESA dated 2012, 2002, 1995, 1994, 1984, 1974, 1964, 1953, 1946, 1939 and 1938, as well as a 2014 photo provided as Figure 4 that depicts pre-burn conditions. Because most of these photos are limited to portions of the Project site, multiple photos of the same year occur for several dates (i.e., with different areas of coverage), with photo coverage summarized as follows: 1938 (one photo), 1939 (one photo), 1946 (two photos), 1953 (two photos), 1964 (two photos), 1974 (two photos), 1984 (two photos), 1994 (one photo), 1995 (one photo), 2002 (two photos), 2012 (two photos), and 2014 (one photo). All of these are included in Appendix C, except for the 2014 photo which is provided as Figure 4.

- 1938/1939 Photographs – The 1938 and 1939 photos encompass the entire Project site and adjacent off-site areas. These photos depict relatively extensive areas of furrowing or cultivation in the northwestern, north-central, and southeastern portions of the site, with the cultivated areas appearing to encompass indistinguishable row/field crops. Furrowed areas are also present in adjacent/nearby off-site areas to the north and southeast, with no discernable specific uses, as well as along portions of Mission Road to the northwest and Lilac Road to the south. Additional on-site development in the referenced photos is limited to minor structures, unpaved roads, and landscaping (potentially comprising windbreaks). The eastern portions of the site, as well as off-site areas to the southwest, are predominantly undeveloped/undisturbed and support native habitat.

- 1946 Photographs – The 1946 photos include the entire Project site and adjacent off-site areas. These photos depict cleared or furrowed areas in similar on-site locations as noted above for the 1938/39 photos, along with some additional areas in the northwestern portion of the site. Other on-site development, such as buildings and roads, are also similar to those described for 1938/39. Off-site areas are also generally similar to those described for 1938/39, although some additional orchard cultivation is present in areas to the northwest. The eastern portions of the site, as well as most visible off-site areas, are predominantly undeveloped/undisturbed and support native habitat, with similar roadway development and some minor residential development to the east and south.

- 1953 Photographs – The 1953 photos include much of the Project site (except the easternmost portion), with off-site coverage similar to that noted above for the 1946 photos (except to the east). Conditions within the visible portions of the site and surrounding areas were generally similar to those described for the 1946 photos, with the following exceptions: (1) on-site orchards are present in the southeastern and south-central portions of the site for the first time; (2) additional minor structures and small surface impoundments are present in various portions of the site; and (3) additional areas of cultivation are visible in the north-central and northwestern areas (with no discernable crop types). Visible off-site areas are generally similar to those described for the 1946 photos, with some additional residential development to the southeast and northwest, and extensive additional clearing to the north (north of the San Luis Rey River).

- 1964 Photographs – The 1964 photos include the entire Project site except for the easternmost area, with slightly more off-site coverage to the south and slightly less to the north than noted for the 1953 photos. On-site conditions in 1964 were generally similar to those described in 1953, although additional areas of clearing and orchard cultivation are present along the southeastern and south-central property boundaries. Some additional development was also present on-site in the form of new roads/trails and surface water features. Off-site areas to the northwest and south exhibit relatively extensive additional orchards and (apparently) related residential and roadway development, with the cleared area north of the river noted for the 1953 photo apparently converting back to native habitat.

- 1974 Photographs – The 1974 photos include the entire Project site and adjacent areas, with additional off-site coverage to the southeast relative to earlier photos. On-site conditions are similar to those described for 1964, although expanded areas of clearing and orchard cultivation are present in the southeastern, south-central, and north-central portions of the site, along with additional roads and water features. Agricultural and related (e.g., residential) uses in off-site

areas to the south, southeast and northwest are substantially expanded from 1964, with large areas of orchard and other (undiscernible) cultivation present, as well as apparent nursery/ greenhouse uses and numerous residential sites. In addition, off-site residential development to the northeast is also present in 1974, as well as portions of Pala Road to the north and Old Highway 395 to the east.

- 1984 Photographs – The 1984 photos include similar areas as noted above for 1974, with slightly more off-site coverage to the west and north, and slightly less off-site coverage to the east and south. On-site conditions are generally similar to those described for the 1974 photo, with fewer cleared/cultivated areas in the northern portions of the site, essentially the same areas under cultivation for avocados, and additional and larger surface water impoundments present. Additional agricultural, residential and apparent equestrian uses (e.g., horse rings) are visible in off-site areas to the northwest, south and/or southeast, including numerous orchards, nursery sites and surface water impoundments. The off-site Sullivan Middle School campus located along the southern property boundary (near the southeastern corner) is also visible for the first time in 1984, with the school site apparently under development at that time.

- 1994/1995 Photographs – The 1994/1995 photos include similar areas as noted above for 1984. On-site agricultural and other development areas are generally similar to those described for 1984, although fewer areas of row/field crop cultivation are present, and equestrian facilities (e.g., buildings and pastures) are visible in the north-central and northwestern portions of the site for the first time. Additional surface water impoundments are also present, and are similar in size and location to current water features. Off-site uses are also generally similar to those described in 1984, although additional orchard development is present to the northwest and the adjacent school site to the south includes additional development.

- 2002 Photographs – The 2002 photos are similar in extent to the 1994/1995 photos described above. On-site conditions are generally the same as those described in 1994/1995, although the cultivated areas in the southern portion of the site (near the off-site school property) are slightly expanded. Off-site areas in these photos are also generally similar to 1994/1995, with the following exceptions: (1) more urban development and fewer orchards are present to the northwest; (2) more extensive agricultural activity (e.g., row/field crops, greenhouses, nurseries and orchards) are present to the south and southeast; and (3) the adjacent school property to the south is fully developed (similar to the current condition).

- 2012 Photograph – The 2012 photos include similar coverage as noted above for 2002. Conditions on the Project site are similar to 2002, although fewer cultivated areas are present in the central portion of the property. Off-site areas are generally the same as described in 2002, with more nursery and row/field crop uses, and less extensive orchards to the southeast.

- 2014 Photograph – The 2014 photo included as Figure 4 displays conditions for the site and surrounding off-site areas prior to the 2017 Lilac Fire (as described in Section 1.4). Specifically, on-site agricultural uses are similar to those described from 2012, with the exception that orchards and other cultivated areas in the south-central portion of the site used for cut flowers are slightly less extensive (with portions of these areas apparently reverting back to native habitat). Off-site conditions are also similar to 2012, with some minor modifications to areas located to the northwest (e.g., more urban development, fewer orchards) and southeast (e.g., additional nursery uses). As described in Section 1.4, however, approximately 975.5 acres

(70 percent) of the Project site was burned in the 2017 Lilac Fire, including all of the described agricultural uses except for approximately 56 acres of oat hay cultivation in the southeastern corner of the site (with all on-site agricultural uses terminated after the fire).

Pursuant to the above information, the following conclusions are provided regarding historical onsite agricultural use: (1) cattle ranching reportedly began onsite as early as the late 19th Century; (2) commercial agricultural operations for cultivated crops have been conducted on the Project site and adjacent areas since the 1930s; (3) on-site agricultural activities continued and generally expanded (albeit slightly) through the 1970s; (4) reductions in the extent of on-site agricultural operations occurred generally during the 1980s, with relatively substantial portions of the north-central and northwestern the site areas converted to equestrian uses beginning in the mid-1980s; and (5) minor expansions of cultivation occurred in the south-central portion of the site between the mid-1990s and early 2000s, with these areas then reduced between 2002 and 2012 (and the extent of such uses in 2012 similar to conditions prior to the 2017 Lilac Fire).

Based on the described on-site agricultural history, agricultural-related pesticide use records for the Project site during the period of 2012 through 2016 were obtained from the AWM in July 2016 (with no records available for the site prior to 2012, County 2016a). These records indicate the following pesticide uses at the Project site:

- Pesticide use was implemented on 50 acres of avocado orchards between 2012 and 2016, with these areas located in the south-central portion of the site. Specific applications included standard chemical pesticides, such as miticides (Envidor 2C and Abacus), along with products intended for organic pest control such as mineral oils (e.g., IAP Summer 415 and Leaf Life Gavicide). All recorded applications were conducted via air spraying methods.

- Pesticide use was implemented on up to approximately 380 acre of tomato fields between 2012 and 2016, with these areas located in the central portion of the site (and subsequently converted to oat hay production, Dickson 2016). Specific applications included fumigants (e.g., Tri-clor), organophosphates (e.g., Diazinon), fungicides/bactericides (e.g., Kocide 3000), insect growth regulators (e.g., Neemix 4.5), pyrethroid insecticides (e.g., Perm-up 3.2 EC), weed killers (e.g., Roundup) and other chemicals. Recorded applications were conducted predominantly by ground, air spraying and fumigation methods.

From the above information, agricultural-related pesticide use was conducted routinely within areas cultivated for avocados and tomatoes between 2012 and 2016, and likely in previous years for orchard and row/field crops.

Climate

As noted in Section 1.4.1, the Project site region is characterized by a Mediterranean climate, with moderate year-round temperatures and relatively low precipitation levels, most of which falls during the winter months. Average annual precipitation at the nearest reporting station (City of Vista, 92003) is approximately 13.7 inches, with the highest average rainfall totals occurring in January (3.1 inches), February (2.7 inches), and March (2.8 inches). The driest months are June, July, and August, which all have an average rainfall total of 0.1 inch (melissadata.com 2016). July, August, and September are the warmest average months in the Project site region, with average daily highs of 71.6°F, 73.0°F and

71.79°F, respectively. December and January represent the coldest months, with average high temperatures of 56.6°F and 56.4°F, respectively, and corresponding average lows of 44.9°F and 45.1°F.

The County is divided into a series of "plant climates," which are defined as areas "[i]n which specific plants, groups or associations are evident and will grow satisfactorily, assuming water and soil are favorable." (Gilbert 1970). Plant climates in San Diego County occur as a series of five generally north-south trending linear zones, including the Maritime, Coastal, Transitional, Interior and Desert zones. These areas are influenced by factors including topography and proximity to the ocean and are generally gradational inland, with the Project site located in the Coastal Zone (County 2006). The Maritime and Coastal zones exhibit relatively low relief and are dominated by oceanic influences, with typically narrow diurnal and seasonal temperature changes and relatively high humidities. These factors begin to decline further inland, with the Transitional Zone displaying more topographic and climatic variation and often alternating between (or combining characteristics of) both the oceanic and inland areas. The Interior and Desert zones to the east are dominated by continental influences, with the Desert Zone extending into the rain shadow created by the Peninsular Range.

More localized climate zones were adapted from the described plant climates, and are termed Generalized Plant Climate Zones, or Sunset Zones, based on the Sunset Western Garden Books that popularized their use (County 2015b, 2006). Sunset Zones differentiate local microclimates, freeze/frost potential, and air/water drainage based on conditions such as latitude, elevation, topography and the influence of oceanic and/or continental air masses. The Project site and vicinity are located in Sunset Zone 23, which is one of the most favorable zones for growing subtropical plants, and is the most favorable zone for avocados. Zone 23 exhibits generally mild temperatures, but lacks the summer heat necessary for crops such as apples, pears and peaches. During more "severe" winters, low temperatures in some areas can range from 23°F to 38°F (County 2015b). Sunset Zones also incorporate the U.S. Department of Agriculture (USDA) hardiness ratings, which designate 11 zones depicting the lowest temperature at which individual plant species will thrive (County 2015b). The Project site is located within USDA hardiness Zone 10a, which exhibits an average minimum temperature range of 30° to 35°F (USDA 2016).

Based on the described information, the Project site climate exhibits generally mild year-round temperatures and infrequent episodes of freezing and severe frost. These conditions make it potentially suitable for a number of temperature-sensitive crops such as citrus, avocados, nuts, row/field crops, and nursery products (e.g., cut flowers).

Water Resources

As previously noted, municipal water service is currently provided to the Project site by the RMWD. Associated existing RMWD facilities include a 24-inch water line located within West Lilac Road along portions of the southern site boundary, an 8-inch water line that extends into the central portion of the site and (along with an associated pressure reducing station) provides metered water service to the equestrian facilities, and an 8-inch line located within Dulin Road near the northeastern site boundary (Dexter Wilson Engineering, Inc., 2016). There are also 6 existing groundwater wells located onsite, including 3 used currently for equestrian and (pre-burn) agricultural operations, 1 that is available but not currently used, and 2 that are capped (Dickson 2016, refer to Figure 3a). The three active wells (Well Nos. 1 through 3 on Figure 3a) extend to depths of between approximately 40 and 60 feet below the surface, with production rates of between approximately 500 to 1,100 gallons per minute (Fain Drilling & Pump Company, 2015). Water quality data available for Well Nos. 1 and 2 indicate generally moderate

water quality, with total dissolved solid (TDS) levels ranging between approximately 2,100 and 2,200 milligrams per liter (Servi-Tech Laboratories 2015). Shallow groundwater is present in alluvial deposits as indicated by the noted well data, and reportedly occurs at depths as shallow as 12 to 17 feet below the surface (GeoSoils 2016).

Williamson Act Contracts and Agricultural Preserves

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act (California Administrative Code §51200 et. seq.), enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. The issuance of such a contract precludes non-agricultural development of the subject property for a period of 10 years. In return, the landowner receives property tax assessments that are lower than normal because the assessments are based on farming and/or open space uses rather than full market value. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971. Contracts issued under the Williamson Act automatically renew each year for a new 10-year period, unless the landowner files a Notice of Non-renewal to terminate the contract at the end of the current 10-year period. During the 10-year non-renewal period, property taxes are gradually raised to the appropriate level for developable land.

The Williamson Act also authorizes cities and counties to establish agricultural preserves, with these areas intended to identify locations wherein the issuing city or county is willing to enter into Williamson Act contracts. The Williamson Act does not specifically address the issue of compatible land uses in sites adjacent to agricultural preserves or contract lands, other than to require that "[c]ities and counties shall determine the types of uses to be deemed 'compatible uses' in a manner which recognizes that a permanent or temporary population increase often hinders or impairs agricultural operations." (California Administrative Code §51220.5).

No Williamson Act contract lands or agricultural preserves are located within the Project site, although two existing Williamson Act parcels and overlying agricultural preserves are located north and west of the site and are within the Project site ZOI. These designations and other preserves and contract lands in surrounding areas are described below in Section 1.4.3.

1.4.3 Off-site Agricultural Resources

A ZOI was identified for the Project site pursuant to the County agricultural resource guidelines (County 2015b), and includes an area of approximately 3,461 acres. As shown on Figures 5, 6 and 10, a number of active agricultural operations and FMMP designations, along with two Williamson Act contract parcels and two agricultural preserves, are present within the Project ZOI as outlined below.

Active Agricultural Operations

As described in Section 1.4.1 and shown on Figure 5, the Project site region encompasses relatively extensive agricultural operations, including large blocks of (primarily) avocado orchards and nurseries, somewhat smaller areas of row/field crops (with some associated fallow sites), and generally minor greenhouse and vineyard uses (with portions of these uses affected by the 2017 Lilac Fire described in Section 1.4). Summary descriptions of active agricultural operations within the Project ZOI are provided below, with more regional descriptions given in Section 5.0, Cumulative Impacts.

Orchards

Approximately 410.6 acres of orchards are present within the Project ZOI, and occur primarily as relatively large areas located adjacent or in close proximity to the southern and eastern Project site boundaries. These areas include primarily avocados, although minor additional varieties, such as citrus and pomegranates, are present locally. Similar and generally small orchard areas are also present in portions of the ZOI located further north (north of SR 76 and the San Luis Rey River). Orchards within the Project ZOI are located on variable slopes, in areas designated mostly as Unique Farmland.

Nurseries

Approximately 242.3 acres of commercial nurseries are present in the southeastern portion of the ZOI, including areas adjacent to the Project site. These sites consist of intensive operations with extensive in-ground and container plantings, including ornamental plants (e.g., cut flowers and dollar eucalyptus), boxed fruit trees, and landscaping varieties (e.g., palms and junipers). These areas, particularly south of the site (and further southeast outside of the ZOI), also include some enclosed (and opaque) structures, which may encompass uses such as cultivation of temperature- and/or drought-sensitive varieties.

Row/Field Crops

Four areas of apparent row/field crop cultivation are present with the ZOI, including one small area (9.1 acres) located approximately 300 feet south of the Project site, two small areas located approximately 600 (6 acres) and 775 feet (5.3 acres) east of the Project site boundaries, respectively, and a larger (58.2-acre) area located approximately 1,400 feet north of the site (and north of the San Luis Rey River). These areas include cut flowers and other crops that were indistinguishable during field surveys.

Greenhouses

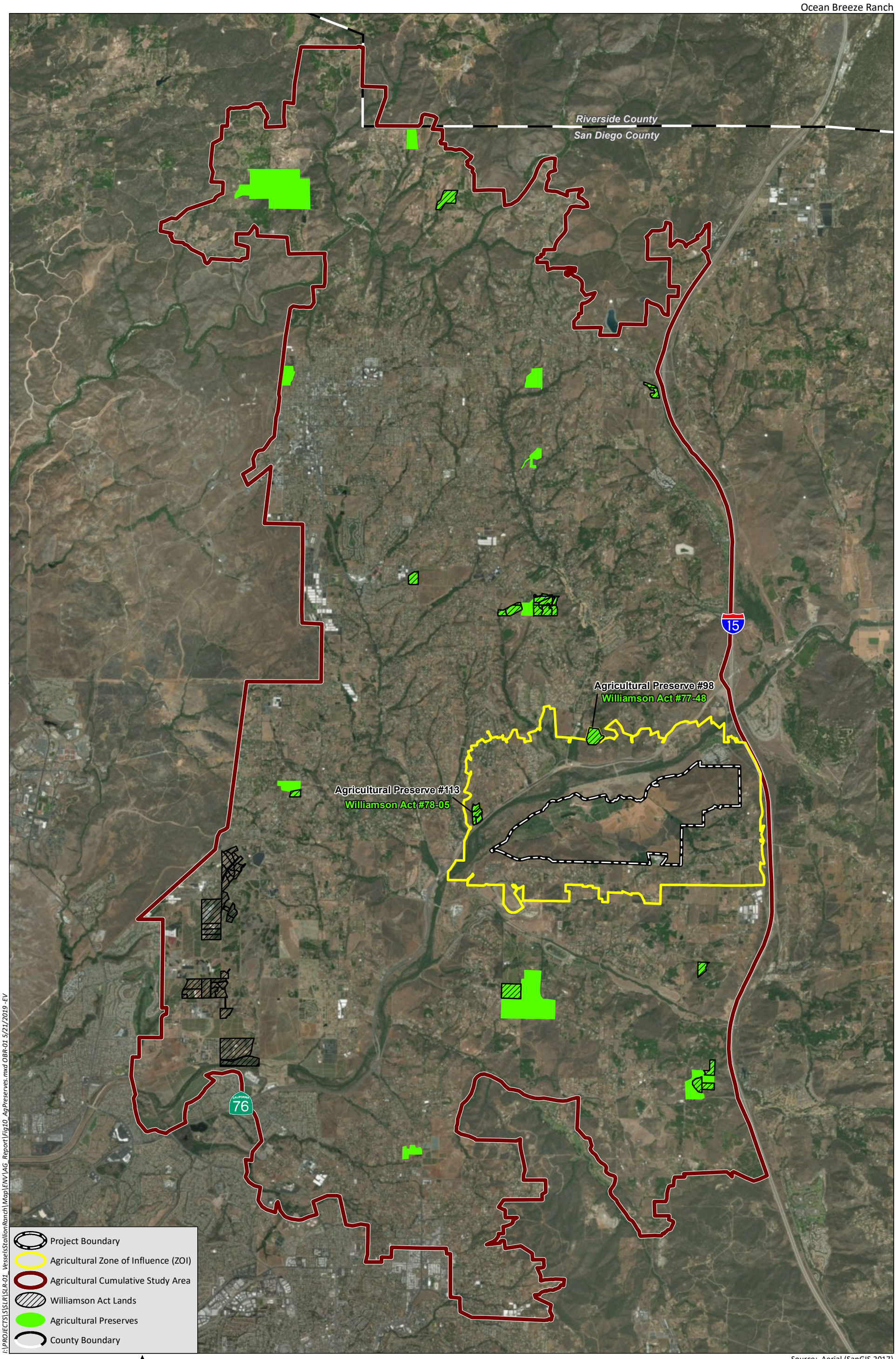
One 5.1-acre area of greenhouse operations is located within the ZOI, approximately 60 feet south of the southern Project site boundary along West Lilac Road. The associated greenhouse structures were fully enclosed and opaque, with no outdoor use (e.g., container or in-ground), plantings, or signs to identify the associated uses (which may include temperature- and/or drought-sensitive varieties as previously noted).

Vineyards

One small, 0.7-acre vineyard is located within the southeastern portion of the Project ZOI, approximately 425 feet east of the Project site boundary.

FMMP Important Farmland Designations

Important Farmland designations mapped within the Project site, ZOI and surrounding areas are depicted on Figure 6, with associated mapped acreages provided in Table 2. As seen from these data, six of the eight previously identified Important Farmland categories occur within the Project ZOI, including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, Urban and Built-up Land, and Other Land. All of these Important Farmland categories were previously defined in Section 1.4.2, with a summary description of the Important Farmland categories within the Project ZOI provided below.



Source: Aerial (SanGIS 2017)

HELIX Environmental Planning

Williamson Act Contract Lands and Agricultural Preserves

Figure 10

Prime Farmland

Approximately 24.09 acres of Prime Farmland are present within the northeastern portion of the ZOI (north of the San Luis Rey River), with this area associated with active row/field crop cultivation.

Farmland of Statewide Importance

Approximately 61.44 acres of Farmland of Statewide importance are present within the ZOI, occurring as generally small and scattered areas located south, southeast and north of the Project site. The areas to the south and southeast are associated primarily with orchard and nursery operations, while the area north of the site (and north of the San Luis Rey River) includes active row/field crop cultivation.

Unique Farmland

Approximately 574.97 acres of Unique Farmland are present within the ZOI, including larger areas located southeast of the site, and generally smaller patches to the south, west and north (north of the San Luis Rey River). Active agricultural uses associated with Unique Farmland within the ZOI include orchards, nurseries and row/field crops.

Farmland of Local Importance

Approximately 334.06 acres of Farmland of Local Importance are present within the ZOI, with these areas located adjacent (or in close proximity) to the northern, southern and eastern Project site boundaries. Associated existing agricultural uses within the ZOI include minor orchards, nurseries, greenhouses, vineyards and row/field crops in areas south and east of the site.

Urban and Built-up Land

Approximately 427.43 acres of this designation are located within the Project ZOI, in areas located north and south of the site. Agricultural uses in this designation include minor orchards.

Other Land

Approximately 2,038.88 acres of Other Land are present within the Project ZOI including substantial areas located north and west of the site, and smaller areas to the east and south. Agricultural uses present within this designation include minor areas of orchards.

Williamson Act Contract Lands/Agricultural Preserves

Two active Williamson Act contract parcels and associated (overlying) agricultural preserves are located within the Project ZOI, as depicted on Figure 10. Specifically, these include: (1) Williamson Act Contract No. 78-05 (Preserve No. 113), which includes approximately 17.3 acres located approximately 0.4 mile northwest of the site and is owned by the Lawrence M. and Eileen V. Norton Trust; and (2) Williamson Act Contract No. 77-48 (Preserve No. 98), which includes approximately 21.7 acres located 0.7 mile north of the site and is owned by David A. and Patricia L. Smissen. Based on field reconnaissance and aerial photo review, both of these contract/preserve areas appear to be in active agricultural use for orchards (with associated estate residential development). A number of additional Williamson Act contract land and agricultural preserves are located within the Project cumulative study area (but outside the ZOI), at distances of 1.25 miles or more from the Project site. These designations are

associated with varying agricultural uses, including orchards, nurseries and row/field crops (refer to Figures 5 and 10).

1.4.4 Zoning and General Plan Designation

The Project site is currently zoned as Limited Agriculture (A-70, with 1- to 4-acre minimum lot sizes), Variable Family Residential (RV, with 4-acre minimum lot sizes), and Open Space (S80, with 8-acre minimum lot sizes). The A-70 designation is intended to create and preserve areas primarily for agricultural crop production and additional allowable uses including residential sites, keeping limited numbers of small farm animals, and processing agricultural products raised on the premises. The RV designation is associated with areas where family residential uses are the principal and dominant use, and where certain civic uses are conditionally permitted when they serve residential needs. The S80 designation is used to provide appropriate controls for areas considered generally unsuitable for intensive development, including hazard or resource areas, public lands, recreation sites, or lands subject to open space easement or similar restrictions.

Existing regional land use categories within the Project site include Village Residential (VR), Semi-Rural (SR) and Rural Lands (RL), with associated General Plan designations of VR-4.3, SR-10, RL-20 and RL-40. These designations allow densities of 4.3 dwelling units (DUs) per acre for the VR-4.3 designation, and one DU per 10 to 20, and 40 gross acres, respectively, for the remaining designations (County 2011a).

Implementation of the Proposed Project would not change the existing land use and zoning designations noted above or the associated overall density allocations, and would therefore not require a General Plan Amendment. The Project would require a TM and two MUPs, however, for residential and equestrian uses, along with additional various and subordinate permits related to the TM and MUPs (refer to Section 1.2).

2.0 ON-SITE AGRICULTURAL RESOURCES

2.1 LOCAL AGRICULTURAL RESOURCE ASSESSMENT (LARA) MODEL

The County of San Diego has approved a local methodology that is used to determine the importance of agricultural resources in the unincorporated area of San Diego County, known as the LARA Model. This model utilizes six factors to determine the importance of agricultural resources, including water, climate, soil quality, surrounding land uses, land use consistency, and topography.

The following subheadings provide a description of the Project site rating for each LARA Model factor, including justification for the factor ratings assigned to the Project site. Each factor receives a rating of high, moderate or low importance based on site-specific information, as detailed in the LARA Model instructions (*Section 3.1, LARA Model Instructions, from the Agricultural Guidelines for Determining Significance,* County 2015b, see Appendix A). The factor ratings for the Project site are summarized in Table 3, LARA Model Factor Findings, with the final LARA Model results based on the associated combination of factor ratings shown in Table 4, Interpretation of LARA Model Results (refer to Section 2.1.2).

2.1.1 LARA Model Factors

Descriptions of the LARA Model factor evaluations conducted for the Proposed Project are outlined below, with additional information provided in the referenced LARA Model Instructions included as Appendix A of this report.

Required Factors

Water

The LARA Model water rating for the Project site is high, based on the site location within the San Diego County Water Authority (SDCWA) service area, and the fact that existing water infrastructure and metered water service is currently available from the RMWD (refer to Sections 1.4.1 and 1.4.2). The Project site is also located within an alluvial groundwater aquifer, with six existing on-site wells, including three that are currently producing and one that is available but not currently in use (refer to Section 1.4.2). Pursuant to Section 3.1.1 and Table 3 of Appendix A, sites where imported water is available receive the highest water rating in the LARA Model, regardless of groundwater availability. This conclusion is based on the fact that imported water is considered essential to long-term agricultural use in San Diego County, due to the limited availability of local rainfall and groundwater resources.

Climate

The Project site climate rating is high, based on its location within Sunset Zone 23, as described under the Climate heading in Section 1.4.2. Specifically, this Zone is rated high in Table 6 of Appendix A, based on factors including a favorable climate that allows year-round production, and proximity to urban areas and infrastructure.

Soil Quality

Pursuant to the LARA Model, soil quality within the Project site is rated as moderate, based on the fact that the site yielded a Soil Quality Matrix score of 0.498, and has a minimum of 10 acres of contiguous mapped CDC Prime Farmland or Farmland of Statewide Importance candidate soils (refer to Table 1 and Figure 9 in this report, and Table 8 in Appendix A). A copy of the Soil Quality Matrix Worksheet used to determine the Project site score is included as Table B-1 in Appendix B of this report. As outlined in Section 3.1.3 of Appendix A, the presence of CDC Prime Farmland and Farmland of Statewide Importance candidate soils is used in the LARA Model soil quality rating because these designations are used in the corresponding FMMP Prime Farmland and Farmland of Statewide Importance categories (as defined in Section 1.4.2), as well as the fact that limited quantities of these high-quality soils occur in San Diego County.

Complementary Factors

Surrounding Land Use

The surrounding land use rating for the Proposed Project is high, based on the fact that more than 50 percent of lands within the Project ZOI are “compatible with agriculture,” as shown on Table 9 of Appendix A. Specifically, approximately 3,261 acres (or 94.2 percent) of the 3,461-acre ZOI encompass lands that are compatible with agriculture (per Section 3.1.4 of Appendix A), including existing agricultural uses (see Figure 5), protected resource lands (e.g., Williamson Act contracts/agricultural

preserves, see Figure 10), open space, and areas that are primarily rural residential in nature (see Figure 4). Surrounding land use is included as a complementary factor in determining the importance of agricultural resources due to the fact that compatible land uses make a site generally more attractive for agricultural use. This is based on the expectation that such compatible uses will result in fewer potential nuisance issues (noise, dust, etc.) from non-agricultural neighbors than would likely occur in association with more urban uses. Accordingly, while agricultural uses can be viable in a more urban setting (depending on the type of agricultural use), the likelihood of establishing agricultural operations and the long-term viability of such pursuits will generally be higher in areas with compatible land uses as described.

Land Use Consistency

The land use consistency rating for the Proposed Project is high, based on the fact that the median on-site parcel size under the proposed design is smaller than the median parcel size within the ZOI (per Table 10 in Appendix A). Specifically, the Proposed Project includes 396 parcels with a median size of 0.14 acre, while the ZOI includes 1,175 parcels with a median size of 3.1 acres. As outlined in Section 3.1.5 of Appendix A, land use consistency is included as a complementary factor in determining the importance of agricultural resources based on the assumption that larger parcel sizes will generally represent areas that have not been significantly urbanized and are more likely to support and be compatible with viable agricultural operations. Median parcel size is used in the analysis to account for the fact that a small number of very large or very small parcels could potentially skew the results if the average parcel size was utilized.

Topography

The topographic (slope) rating identified for the portion of the Project site that is “available for agricultural use” (as shown in Table B-1 of Appendix B) in the LARA Model is moderate, based on the fact that the noted portion of the Project site exhibits an average slope between 15 and 25 percent (refer to Table 11 of the LARA Model instructions in Appendix A). The Project site slope is included as a complementary factor in the LARA Model to reflect the fact that topography can represent an important element in the overall viability of a property for agricultural use. Specifically, sites with more level terrain can typically accommodate a greater range of potential agricultural uses, and are more amenable to efforts such as the use of mechanized operations and the effective management of irrigation runoff and erosion.

2.1.2 LARA Model Results

A summary of the LARA Model factor ratings described above are in provided in Table 3, followed by an interpretation of these results in Table 4.

Table 3
SUMMARY OF LARA MODEL FACTOR RATINGS

Factors	LARA Model Rating		
	High	Moderate	Low
Required Factors			
Climate	X		
Water	X		
Soil Quality		X	
Complementary Factors			
Surrounding Land Use	X		
Land Use Consistency	X		
Topography (Slope)		X	

Table 4
INTERPRETATION OF LARA MODEL RESULTS

LARA Model Results			LARA Model Interpretation
Possible Scenarios	Required Factors	Complementary Factors	
Scenario 1	All three factors rated high	At least one factor rated high or moderate	The site is an important agricultural resource
Scenario 2	Two factors rated high, one factor rated moderate	At least two factors rated high or moderate	
Scenario 3	One factor rated high, two factors rated moderate	At least two factors rated high	
Scenario 4	All factors rated moderate	All factors rated high	
Scenario 5	At least one factor rated low	N/A	The site is not an important agricultural resource
Scenario 6	All other model results		

Source: County (2015b)

As seen from the information in Table 3, the LARA Model results exhibit: (1) high ratings for two required factors (climate and water); (2) a moderate rating for the third required factor (soil quality): (3) high ratings for two complementary factors (surrounding land use and land use consistency); and (4) a moderate rating for one complementary factor (topography). Accordingly, per the rating factors shown in Table 4, the site conforms to Scenario 2 and is an important agricultural resource.

2.2 GUIDELINES FOR DETERMINATION OF SIGNIFICANCE

The following significance guideline is the basis for determining the significance of impacts to important on-site agricultural resources, as defined by the LARA Model in San Diego County. Direct impacts to agricultural resources are potentially significant when a project would result in the following:

> The project site has important agricultural resources as defined by the LARA Model; and the project would result in the conversion of agricultural resources that meet the soil quality criteria for Prime Farmland or Farmland of Statewide Importance, as defined by the FMMP; and as a result, the project would substantially impair the ongoing viability of the site for agricultural use.

2.3 ANALYSIS OF PROJECT EFFECTS

2.3.1 Project Site Effects Related to the LARA Model Results

Based on the information provided above in Sections 1.4.2 and 2.2, the Project site includes approximately 797.9 acres of agricultural resources (including approximately 398.7 acres located within Prime Farmland or Farmland of Statewide Importance candidate soils) and was determined to be an important agricultural resource based on the noted LARA Model results. From the described information on agricultural resources and CDC candidate soils (refer to Figures 7 and 9), Project-related impacts to identified on-site agricultural resources that occur within areas of Prime Farmland or Farmland of Statewide Importance candidate soils encompass approximately 243.7 acres. Specifically, this includes approximately 167.4 acres within the proposed on-site development footprint (structures, roads, grading, etc.) and HOA Lot DD (refer to Section 1.2), as well as approximately 76.3 acres within the proposed Biological Open Space Preserve. The noted areas within the Biological Open Space Preserve are included as impact based on direction in Section 4.2.1 of the County Agricultural Guidelines, which identifies such areas as unavailable for agricultural use (County 2018a, 2015b). Additionally, no impacts to agricultural resources have been assessed for the proposed Equestrian MUP and Remainder Parcel as described in Section 1.2.

Based on the described considerations, the significance guideline identified in Section 2.2, and the related criteria identified in the County Agricultural Guidelines (2015b), the Proposed Project would impact a total of 243.7 acres of on-site agricultural resources that encompass Prime Farmland or Farmland of Statewide Importance candidate soils, and thus would substantially impair the ongoing viability of the site for agricultural use. Accordingly, associated potential direct impacts to important agricultural resources within the site would be significant, and would require mitigation as outlined below in Section 2.4 and shown on Figure 8.

2.3.2 Direct Impacts from Off-site Facilities

As described above in Section 1.2, off-site activities associated with the Proposed Project would include development-related impacts to approximately 2.2 acres associated with roadway improvements. This 2.2-acre area encompasses approximately 0.29 acre of impact to CDC candidate soils, which would require mitigation as outlined below in Section 2.4 (and shown on Figure 8).

2.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Mitigation Measures

Based on the above discussion in Section 2.3, implementation of the Proposed Project would result in approximately 244 acres of direct impacts to identified on-site agricultural resources (243.7 acres) and off-site impact areas (0.29 acre) that encompass Prime Farmland or Farmland of Statewide Importance candidate soils. These areas would require mitigation as outlined below and shown on Figure 8.

Pursuant to Section 5.1.1 of the County Agricultural Guidelines, on-site mitigation of the described impacts to 244 acres of agricultural resources encompassing candidate soils would require preservation of suitable agricultural resources at a 1:1 ratio. Accordingly, if 244 acres of on-site agricultural resources encompassing Prime or Statewide candidate soils were preserved as “available and viable” for agricultural use through an agricultural easement, the associated impacts would be considered less than

significant. The use of on-site agricultural resource preservation to mitigate all or part of the identified Project impacts is considered infeasible, however, based on the following considerations: (1) the majority of the proposed residential development areas do not include lots of 2 acres or larger in size and are thus not suitable for on-site mitigation (including all 381 lots in Planning Areas 1 and 2); (2) portions of the larger lots in Planning Area 3 include limited use easements that preclude agricultural use; (3) the use of on-site areas for agricultural mitigation would likely result in significant interface conflicts with adjacent residential and biological open space uses; and (4) on-site preservation of up to approximately 244 acres of applicable agricultural areas would create substantial land use effects (and related financial impacts) for the Proposed Project, due to the required loss of numerous residential lots, as well as associated potential effects to proposed open space, parks, landscaping, and utilities.

Based on the above discussion, the Proposed Project would be required to provide appropriate mitigation at a ratio of 1:1 for the identified 244 acres of on- and off-site impacts to agricultural resources, per the referenced County Guidelines, with areas requiring mitigation for the noted impacts shown on Figure 8. These Project-related agricultural impacts would require implementation of one (or a combination) of the following options to provide appropriate mitigation: (1) providing off-site mitigation for the noted 244 acres of impact at a 1:1 ratio through the acquisition of agricultural mitigation credits via the County Purchase of Agricultural Conservation Easement (PACE) Program; or (2) purchasing off-site agricultural lands or easements totaling 244 acres that conform with the County Agricultural Guidelines. Additional discussion of the PACE Program and the noted mitigation options is provided below. With implementation of the described mitigation, direct Project-related impacts to on- and off-site agricultural resources would be reduced below a level of significance.

The PACE Program is intended to promote the long-term preservation of agriculture in the County, as part of the General Plan Update process. Under the PACE Program, willing agricultural property owners are compensated for placing a perpetual easement on their agricultural property to limit future non-agricultural uses and development potential. As a result, the agricultural land is preserved and the property owner receives compensation that can make its continued use for agriculture more viable. The pilot phase of this Program was completed in 2013, with several agricultural easements established (County 2013). On September 17, 2014, the Board of Supervisors approved the PACE Program as an agricultural mitigation credit Program, under which project applicants may purchase “mitigation credits” for impacts to agricultural resources.

Based on the previous discussion, the following mitigation measure is required to address identified impacts to agricultural resources from implementation of the Proposed Project:

Mitigation Measure AG-1

- The Project applicant shall provide 244 acres of mitigation to address identified direct impacts to on- and off-site agricultural resources from the proposed development, through a combination of either: (1) acquiring 244 acres of pertinent agricultural resource credits through the County PACE Program; or (2) purchasing off-site agricultural lands or easements totaling 244 acres that conform with the County Agricultural Guidelines (pursuant to County approval).

Design Considerations

With implementation of the mitigation measure described above, identified direct impacts to on-and off-site agricultural resources from implementation of the Proposed Project would be reduced below a

level of significance. As a result, no Design Considerations associated with direct on- and off-site impacts to agricultural resources are proposed.

2.5 CONCLUSIONS

Potential Project-related direct impacts to applicable on- and off-site agricultural resources would total 244 acres, and would be significant pursuant to the County Agricultural Guidelines. Based on these Guidelines, the Project applicant would be required to provide associated mitigation at a 1:1 ratio, or a total of 244 acres. This mitigation would be provided through a combination of either: (1) acquiring 244 acres of off-site mitigation credits via the County PACE Program; or (2) acquiring off-site agricultural lands or easements totaling 244 acres that conform with the County Agricultural Guidelines (with County approval). With the described mitigation, direct Project-related impacts to on- and off-site agricultural resources would be reduced below a level of significance.

3.0 OFF-SITE AGRICULTURAL RESOURCES

3.1 GUIDELINES FOR DETERMINATION OF SIGNIFICANCE

The following significance guidelines are derived from the San Diego County Agricultural Guidelines (2015b), and are the basis for determining the significance of indirect impacts to off-site agricultural resources and Williamson Act Contract lands in San Diego County:

a. The project proposes a non-agricultural land use within one-quarter mile of an agricultural operation or land under a Williamson Act Contract (Contract) and as a result of the project, land use conflicts between the agricultural operation or Contract land and the Proposed Project would likely occur and could result in conversion of agricultural resources to a non-agricultural use.

b. The project proposes a school, church, day care or other use that involves a concentration of people at certain times within one mile of an agricultural operation or land under Contract and as a result of the project, land use conflicts between the agricultural operation or Contract land and the proposed project would likely occur and could result in conversion of agricultural resources to a non-agricultural use.

c. The project would involve other changes to the existing environment, which due to their location or nature, could result in the conversion of off-site agricultural resources to a non-agricultural use or could adversely impact the viability of agriculture or land under a Contract.

3.2 ANALYSIS OF PROJECT EFFECTS

As described above in Section 1.4.3, the Project ZOI encompasses a number of existing agricultural operations, as well as two active Williamson Act Contracts. These areas are shown on Figures 5 and 10 (respectively), and are described below with respect to proximity to the Project site and related potential impacts.

3.2.1 Project Effects Related to Nearby Agricultural Operations

Implementation of the Proposed Project would result in the development of a residential community and a separate equestrian facility in an area with adjacent or nearby agricultural uses including relatively large-scale orchards and commercial nurseries, as well as smaller areas of row/field crops, greenhouses and vineyards. Based on these conditions, the potential for proposed development to generate interface conflicts with nearby agricultural operations is assessed below. For purposes of this analysis, "nearby" agricultural operations are defined to include existing agricultural operations within the Project ZOI.

Properties with existing agricultural operations that are within the Project ZOI include the following (refer to Figure 5): (1) approximately 410.6 acres of active orchards adjacent or in close proximity to the southern and eastern site boundaries; (2) approximately 242.3 acres of nursery operations with varied uses adjacent or near to portions of the southeastern property corner; (3) a minor (5.1-acre) area of greenhouses near the south-central site boundary; (4) four areas of row/field crop use to the north, south and east totaling approximately 78.6 acres; and (5) one small (0.7-acre) vineyard to the east. Potential interface conflicts with these properties are discussed below to determine whether such conflicts could result in the conversion of agricultural resources to a non-agricultural use.

The referenced County Agricultural Guidelines identify a number of design measures that may be used to reduce potentially significant interface conflicts between proposed development and off-site agricultural uses, including the following:

- Incorporate compatibility buffers to separate agricultural parcels from non-agricultural land uses, potentially including measures such as natural and/or planted vegetation, physical barriers (e.g., roads or walls), and easements that restrict incompatible uses (with the referenced Guidelines identifying compatibility buffers as "…the primary tool to increase compatibility between agricultural resources and non-agricultural uses.").

- Incorporate appropriate land use transitions such as reduced density near adjacent farmland to decrease the number of residents that abut farms.

- Incorporate appropriate fencing or barriers to minimize trespass.

These measures, along with additional efforts as outlined below, have been incorporated into the Project design in applicable locations/circumstances to reduce potential interface conflicts with off-site agricultural uses.

The Proposed Project would not be anticipated to result in (or increase) potential conflicts related to issues such as trespassing, theft, and vandalism at any of the nearby agricultural operations described below. Specifically, this conclusion is based on the following considerations: (1) the noted off-site agricultural areas are already generally accessible currently by existing public streets (e.g., West Lilac Road and SR 76); (2) none of the residential lots in Planning Areas 1 through 3 are adjacent to off-site agricultural areas (including 395 of the 396 proposed lots), with minimum intervening distances of several hundred feet encompassing relatively steep topography and thick native habitat (thereby limiting pedestrian access); (3) larger lots in Planning Area 3 and the southeastern estate residential site would be within gated communities that would encompass physical barriers to help restrict unauthorized pedestrian ingress and egress; and (4) Project site boundary areas near off-site agricultural uses in the vicinity of the southeastern estate residential parcel (Lot 396) would require the use of

"screen fence", dense "buffer plantings" and 100-foot brush management zone buffers through an approved Project Landscape Plan. Based on the nature of proposed development, Project Implementation would also not be expected result in conditions or effects (e.g., substantial air contaminant generation) that would adversely impact or be incompatible with nearby agriculture, and Project implementation would include both short-term (construction) and long-term measures to avoid or minimize drainage and water quality effects to surrounding areas. Specifically, this would involve efforts such as designing storm drain systems to accommodate applicable flows and prevent on- or off-site flooding (per associated County standards), and controlling contaminant discharge through conformance with pertinent regulatory requirements (e.g., the National Pollutant Discharge Elimination System [NPDES]), including short- and long-term control of erosion/sedimentation and other applicable contaminates.

Orchard Operations

Relatively extensive orchards are located in areas adjacent to or near the Project site on the south and east. As previously described, these orchards consist primarily of avocados, with generally minor amounts of other crops such as citrus and pomegranates present locally. Because orchard operations typically do not entail substantial noise, dust, vector, or chemical generation as compared to more intensive agricultural operations, they are considered generally compatible with most urban uses, and would not result in substantial interface conflicts with the Proposed Project. Specifically, the County Agricultural Guidelines (2015b) note that "…orchard crops such as avocados and citrus are often compatible with residential uses…a project proposed near but not adjacent to orchard crops will not usually result in significant indirect impacts to these resources." The Project design also includes relatively large lots and/or setbacks/buffers in areas with existing nearby off-site orchards (refer to Figures 3a through 3d and 5). Specifically, residential lots in Planning Areas 1 through 3 are set back a minimum of approximately 1,200 feet from the closest nearby orchards to the south, with other proposed lots in these areas exhibiting larger setbacks from the noted orchards. Additionally, the buildable (northern) portion) of the southeastern estate residential site (Lot 396) located west of the associated road, landscaping and brush management corridors, is set back a minimum of approximately 200 feet from the off-site orchards to the east, with the large size/low density of this lot (i.e., one dwelling unit on over 24 acres) providing opportunities to further reduce potential interface conflicts through measures such as structure location/orientation (i.e., to provide setbacks) and landscape/fence screening. Specifically, a five-foot wooden (non-combustible) "screen fence", extensive "buffer plantings" and a 100-foot fuel management zone would be installed along applicable portions of Lot 396 as part of the approved Project Landscape Plan (refer to Appendix D). Additional uses such as small, private orchards and gardens, while not proposed as part of the Project design or required as mitigation/design considerations, would also be allowable on Lot 396., Such uses would create the potential for enhancement of local rural/agricultural character and additional blending and/or screening with/from off-site orchards (refer to the discussion of Residential Development in Section 1.2). It should also be noted that existing (off-site) single-family residential sites are located in closer proximity to the described off-site orchards than the proposed estate residential site in Lot 396, with no known current or previous interface conflicts. As a result of the described conditions, no significant effects related to interface conflicts with off-site orchards would result from Project implementation.

Nursery Operations

Existing nursery operations are located adjacent to portions of the southeastern site corner, near the proposed estate residential site in Lot 396. These nurseries include in-ground and container plantings of

decorative crops such as dollar eucalyptus and cut flowers, as well as fruit and landscaping trees (e.g., palms). The buildable portion of Lot 396 (as outlined above under Orchard Operations) is set back a minimum of approximately 400 feet from the noted off-site nursery uses (with all other proposed residential lots located a minimum of 2,300 feet from off-site nursery uses). The large size of this lot would, as noted above under the discussion of orchards, also provide opportunities to reduce potential conflicts with nearby nurseries through measures such as structure location/orientation, fence/ landscape screening and a 100-foot fuel management zone (with such uses/facilities to be required as part of the approved Project Landscape Plan (refer to Appendix D). Additional uses such as small, private orchards and gardens would also be allowable as previously noted for orchard operations, creating the potential for enhancement of local rural/agricultural character and additional blending and/or screening. In addition, portions of the existing Sullivan Middle School campus (including an outdoor athletic field) and several off-site single-family homes exhibit smaller intervening distances to the described nursery sites than the proposed estate residential lot, with no known current or previous interface conflicts. Based on the described considerations, no significant effects related to interface conflicts with off-site nursery uses would result from Project implementation.

Greenhouses

A small (5.1-acre) greenhouse operation is located south of West Lilac Road, approximately 1,100 feet west of the Sullivan Middle School property. This greenhouse operation is located a minimum of approximately 2,500 feet from proposed on-site residential lots. Based on these distances, the small area of greenhouse operations, the presence of existing residential uses in closer proximity to greenhouse uses (with no known current or previous interface conflicts), and the fact that related agricultural activities are confined within enclosed greenhouse structures, no associated significant interface conflicts or impacts are anticipated from implementation of the Proposed Project.

Row/Field Crops

As described in Section 1.4.3, four areas of row/field crops ranging in size from approximately 5.3 to 58.2 acres are located within the Project site ZOI (refer to Figure 5). The largest of these is approximately 0.75 mile northeast of the closest proposed residential lot (Lot No. 390 in Planning Area 3), with this lot including approximately six acres. Based on the intervening distance, the noted lot size, and related opportunities for setbacks and screening/blending, no associated significant interface conflicts or impacts to/from residential uses are anticipated from the noted row/field crop operation to the northeast. Three additional minor row/field crop areas are located east and south of the Project site. The operation to the south includes approximately 9.1 acres and is located approximately 1,500 feet from the closest residential lots in Planning Area 1 (Nos. 141 through 144). The two areas to the east include 6 acres (northernmost area) and 5.3 acres (southernmost area), and are located approximately 800 and 2,300 feet from the developable portion of the southeastern estate residential area (Lot 396, as previously described and shown on Figure 3a). Based on the described intervening distances, the relatively small extent of row/field crop operations, the use of fencing/landscape screening and fuel management zones as noted above for orchard and nursery operations, and the fact that more proximal (and intervening) single-family residential sites are present in all three noted areas (with no known current or previous interface conflicts), no significant interface conflicts or impacts are anticipated in association with the noted row/field crop operations to the east and south.

Vineyards

One small (0.7-acre) vineyard is located approximately 600 feet east of the developable portion of the southeastern estate residential area in Lot 396 (as previously described). Based on the noted distance, the small area of vineyard operations, the use of fencing/landscape screening and fuel management zones as noted above for orchard and nursery operations, and the presence of existing residential uses in closer proximity (with no known current or previous interface conflicts), no significant interface conflicts or impacts are anticipated in relation to the described vineyard.

Agricultural Zoning and Williamson Act Contract Lands

A number of surrounding properties within the Project site ZOI, particularly areas to the south, include zoning designations (e.g., A 70) and related conditions (undeveloped areas) that would potentially accommodate additional agricultural uses under County jurisdiction. While these undeveloped properties could potentially be subject to future agricultural use, associated significant interface conflicts or impacts related to Proposed Project residential uses are not anticipated based on the following considerations:

- Off-site land use and zoning designations are not exclusive to agriculture, with agricultural uses in these areas typically associated with additional uses, such as estate residential development (with numerous areas of such mixed agricultural/residential use already present). As previously described, County guidelines permit and anticipate the co-existence of single-family estate housing and high-value crop production, such as orchards (refer to pp. 3 and 41-43 of the referenced County Guidelines).

- The Proposed Project would include required conformance with the County Agricultural Enterprises and Consumer Information Ordinance (County Code Section 63.401 et seq.). This Ordinance is intended primarily to identify and limit the circumstances under which agricultural activities may constitute a nuisance. The ordinance notes that agricultural uses may be converted to other uses or zones, whether or not the parcels are zoned for agricultural uses. It prohibits land use changes in the vicinity of existing agricultural uses, however (when such uses have been established for a minimum of 3 years), that would result in the existing agricultural uses to be deemed a nuisance if they were not a nuisance prior to the proposed land use change. In addition, the Ordinance requires prospective property buyers (new or resale buyers) in unincorporated areas to be notified that agricultural activities may occur in the vicinity, and that associated inconveniences, irritations or discomforts could potentially result.

As previously described, two active Williamson Act Contract parcels (Contract Nos. 77-48 and 78-05) are located approximately 0.7 mile north and 0.4 mile northeast of the Project site, respectively (refer to Figure 10). No associated significant interface conflicts or impacts are anticipated from implementation of the Proposed Project, however, based on the described intervening distances, as well as the fact that agricultural activities in both contract areas consist of orchards (which are considered generally compatible with most urban uses as described above in this section under the discussion of Orchard Operations).

3.2.2 Project Effects Related to More Distant Agricultural Resources

As depicted on Figure 5, existing agricultural operations in more distant areas (i.e., outside of the Project site ZOI) include relatively large orchard, nursery and row/field crop operations, as well as smaller areas of greenhouse and vineyard uses. None of these existing agricultural activities are anticipated to involve substantial interface conflicts or impacts in association with the Proposed Project, based on the intervening distances to the Project site and similar reasons as noted above for nearby agricultural sites (e.g., the presence of more proximal and intervening uses such as residential and school sites).

3.2.3 Project Effects Associated with Agricultural Resources Related to Proposed School, Church, Day Care, or Other Applicable Uses

Because the proposed development does not include any schools, churches, day care facilities or other applicable uses (per Item b in Section 3.1), no associated impacts would result from Project implementation.

3.2.4 Summary of Impacts to Off-site Agricultural Resources

The Proposed Project is not expected to result in significant effects related to interface conflicts with existing or potential future off-site agricultural operations. This conclusion is based the following considerations: (1) larger-scale agricultural operations in close proximity to the site include orchards, which are generally compatible with residential uses, are set back a minimum of 1,200 feet from smaller lots in Planning Areas 1 through 3 and 200 feet from the southeastern estate parcel (Lot 396), with related requirements/opportunities for appropriate buffers/setbacks, fuel modification zones, landscaping/fencing, and additional uses such as private orchards and gardens to provide enhancement of local rural/agricultural character and screening/blending; (2) larger-scale nursery operations near the Project site are closest to the southeastern estate parcel (Lot 396), with a minimum intervening distance of approximately 400 feet (and requirements/opportunities for buffers/setbacks, fuel modification zones, enhancement of local rural/agricultural character and screening/blending as previously noted); (3) nearby greenhouses, row/field crop uses and vineyards are minor in extent, exhibit relatively large setbacks, and/or are closest to the southeastern estate parcel with related setback and screening/ blending opportunities as noted; (4) all nearby off-site agricultural uses include existing residential and/or school development in intervening and/or more proximal areas than Proposed Project lots, with no known current or previous interface conflicts; (5) Williamson Act Contract lands within the Project ZOI are located at distances of 0.4 to 0.7 mile from the Project site, with associated agricultural uses limited to orchards; (6) agricultural uses in areas outside the ZOI include substantial intervening distances to the Project site; (7) other potential indirect impacts to off-site agricultural resources related to trespassing, theft, vandalism or air/water contamination are not anticipated, based on the incorporation of Project design measures such as fencing and setbacks, as well as required conformance with applicable air/water regulatory standards; and (8) the Proposed Project includes required conformance with the County Agricultural Enterprises and Consumer Information Ordinance, including written notification to all prospective property buyers regarding the presence of nearby agricultural uses and associated potential interface conflicts.

3.3 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Based on the nature and location of proposed on-site development and nearby off-site agricultural uses, as well as Proposed Project design elements and conformance with applicable requirements, no related

significant impacts to off-site agricultural resources were identified. As a result, no associated mitigation measures or design considerations are proposed. As noted herein and described above in Section 3.2.1, however, a number of design elements are included in the Proposed Project design to further reduce potential interface conflicts with off-site agricultural uses, with these elements outlined below. Design Elements

- The Proposed Project includes a number of design elements to address potential interface nuisance factors with off-site agricultural operations, such as theft/vandalism, air/water contamination, potential dust, odor and noise conflicts (i.e., from off-site areas). Specifically, this includes the use of fencing/gates to restrict ingress/egress and provide screening in applicable areas; the use of open space preservation, landscaping (including potential on-site orchards and gardens) and setbacks in appropriate areas; and required conformance with pertinent regulatory standards including the County Agricultural Enterprises and Consumer Information Ordinance and applicable hydrology/water quality and air quality regulations. The following Design Elements are identified as part of the Proposed Project design to ensure appropriate use of screen fencing and landscape buffers in association with the southeastern estate parcel (Lot 396):Incorporate appropriate fencing or other barriers to minimize trespass;

- Incorporate Internal compatibility buffers to separate agricultural parcel(s) from non-agricultural land uses to ensure long term viability of the onsite agricultural parcel(s)

In addition, “Screen fence”, “buffer plantings” and brush management zones would be installed along applicable planning area and Project site boundary locations, including portions of Planning Area 3 and the eastern property boundary along the estate residential lot in the southeastern portion of the site (Lot 396, with these efforts to be required as part of the approved Project Landscape Plan), and street/ edge plantings would be used throughout the developed portions of the site (refer to the Project Landscape Concept Plan in Appendix D). These types of uses would help to provide enhanced rural/ agricultural character, screening and/or blending for applicable areas as noted and described in Section 3.2.1.

3.4 CONCLUSIONS

Pursuant to the discussions in Sections 3.2 and 3.3, the Proposed Project would result in less than significant indirect impacts to off-site agricultural resources.

Implementation of the Proposed Project would not result in any significant impacts to existing or potential future off-site agricultural uses, including orchards, nurseries, greenhouses, row/field crops or vineyards, as well as Williamson Act contract lands. This conclusion is based on considerations including: (1) the nature and location of these operations/designations; (2) the inclusion of larger lots, open space, fencing, landscaping, buffers/setbacks, fuel modification zones and additional potential uses such as private orchards and gardens to enhance local rural/agricultural character and provide additional blending and/or screening; and (3) required Project conformance with regulatory standards including air quality emissions, NPDES hydrology/water quality criteria, and the County Agricultural Enterprises and Consumer Information Ordinance.

The Proposed Project would also not generate significant interface impacts related to theft/vandalism and nuisance factors associated with off-site agricultural operations. This conclusion is based on considerations including proposed lot locations and the use of fencing/gates, open space, fuel

modification zones and landscaping as part of the Project design. Specifically, these design factors would help maintain security and provide buffers/setbacks and screening from off-site agricultural areas.

4.0 CONFORMANCE WITH AGRICULTURAL POLICIES

Pursuant to Section 4.0 of the *County Agricultural Resources Guidelines, Report Format and Content Requirements* (2015b), as well as direction from County staff (County 2018a), the following analysis of Project conformance with agricultural policies is included, based on the pending decision of whether or not the preparation of an Environmental Impact Report (EIR) under CEQA and related County guidelines will be required for the Proposed Project. Specifically, if it is subsequently determined that an EIR is not required, then the following analysis of Project conformance with applicable land use and agricultural policies will be retained in this report. Alternatively, if it is subsequently determined that an EIR is required for the proposed Project, this report would be amended to remove the following analysis and include it as part of the EIR Land Use Section.

4.1 APPLICABLE GENERAL PLAN AND RELATED POLICIES

4.1.1 San Diego County General Plan

General Plan Guiding Principles, Goals and Policies Related to Agriculture

The General Plan includes a "guiding principle" that provides general direction regarding agricultural resources, as well as several more specific agricultural goals and policies included in individual General Plan elements. These planning directives are outlined below, along with discussions of associated Project conformance.

General Plan Guiding Principal

The General Plan identifies a guiding principle to "Preserve agriculture as an integral component of the region's economy and open space network."

Project Conformance

The Proposed Project is considered consistent with the stated guiding principle, based on the following considerations:

- While the Proposed Project would impact on-site agricultural resources, these impacts would be reduced to below a level of significance through required mitigation, including participation in the County PACE Program (or other appropriate measures), as described in Section 2.0 of this report. As a result, Project implementation would not reduce the area or extent of agricultural operations within the County, with no related adverse economic effects.

- The noted agricultural resources within the site, while determined to represent an "important agricultural resource" under the LARA Model analysis, have not encompassed active commercial agricultural operations since the December 2017 Lilac Fire (refer to Section 1.4).

- The Proposed Project incorporates substantial on-site open space, including 833 acres of biological preserve and nearly 94 acres of open space uses such as HOA lots and parks/trails, and encompasses a number of design elements intended to provide additional open space and buffers, and/or to enhance local rural/agricultural character and increase compatibility with (and protect) agricultural uses. Specifically, these include: (1) the designation of over 184 acres of pasture and other non-developed areas within an "Equestrian MUP" (refer to Section 1.2), which would preclude development such as grading/ paving/construction and preserve candidate soils in this area; and (2) the inclusion of Project design elements such as extensive landscaping, buffers/setbacks, fuel modification zones and opportunities for private orchards, gardens and vineyards on residential lots (refer to Sections 1.2 and 3.2.1).

- In addition to the above design elements, the Proposed Project will conform with applicable requirements of the County Agricultural Enterprises and Consumer Information Ordinance. As noted in Section 3.2.1, this ordinance is primarily intended to: (1) identify and limit the circumstances under which agricultural activities may constitute a nuisance to nearby land uses; and (2) prohibit land use changes in the vicinity of existing agricultural uses, when such uses have been established for a minimum of three years, that would result in the existing agricultural uses to be deemed a nuisance if they were not a nuisance prior to the proposed land use change.

General Plan Conservation and Open Space Element

Goal Number 6 of the General Plan Conservation and Open Space (COS) Element is intended to support "…viable and long-term agricultural industry and sustainable agricultural land uses in the County of San Diego that serve as a beneficial resource and contributor to the County's rural character and open space network." There are three related policies specific to agricultural resources, COS-6.2 through COS-6.4, which are primarily intended to: (1) avoid or minimize the potential for new development to limit existing agricultural operations; (2) site compatible uses adjacent to agricultural areas; and (3) support programs that establish/utilize agricultural conservation easements and preserve agricultural lands. The specific requirements associated with the stated policies are outlined below, along with assessments of Project conformance.

COS-6.2 – Protection of Agricultural Operations

- Limit the ability of new development to take actions to limit existing agricultural uses by informing and educating new projects as to the potential impacts from agricultural operations.

- Encourage new or expanded agricultural land uses to provide a buffer of non-intensive agriculture or other appropriate uses (e.g., landscape screening) between intensive uses and adjacent non-agricultural land uses.

- Allow for agricultural uses in agricultural areas and design development and lots in a manner that facilitates continued agricultural use within the development.

- Require development to minimize potential conflicts with adjacent agricultural operations through the incorporation of adequate buffers, setbacks, and project design measures to protect surrounding agriculture.

- Support local and State right-to-farm regulations.

- Retain or facilitating large and contiguous agricultural operations by consolidation of development during the subdivision process.

- Discourage development that is potentially incompatible with intensive agricultural uses, including schools and civic buildings where the public gather, daycare facilities under private institutional use, private institutional uses (e.g., private hospitals or rest homes), residential densities higher than two dwelling units per acre, and offices and retail commercial.

Project Conformance

The Proposed Project is considered consistent with Goal COS-6 and Policy COS-6.2, based on the following considerations:

- The Proposed Project will conform with applicable elements of the County Agricultural Enterprises and Consumer Information Ordinance, which provides protection for existing agricultural operations in proximity to proposed development, as outlined above under the General Plan Guiding Principle discussion.

- The Proposed Project includes 833 acres of on-site biological preserve open space and nearly 94 acres of open space uses such as HOA lots and parks/trails, and encompasses a number of design elements that would provide additional open space and buffers, and/or enhance local rural/agricultural character to increase compatibility with and protect agricultural uses. This would include: (1) the designation of over 184 acres of pasture and other non-developed areas within an "Equestrian MUP" (refer to Section 1.2), which would preclude development such as grading/paving/construction and preserve candidate soils in this area; and (2) the use of extensive landscaping, appropriate buffers/setbacks from off-site agricultural uses (refer to Section 3.2.1), fuel modification zones and opportunities for private orchards, gardens and vineyards on residential lots (refer to Sections 1.2 and 3.2.1).

- The Proposed Project does not include development that is potentially incompatible with intensive agricultural uses, "…including schools and civic buildings where the public gather, daycare facilities under private institutional use, private institutional uses (e.g., private hospitals or rest homes) and offices and retail commercial." While the Project design does include residential densities higher than two dwelling units per acre in Planning Areas 1 and 2, the associated residential lots include minimum setback distances of 1,200 feet from off-site agricultural uses (refer to Section 3.2.1).

COS-6.3 – Compatibility with Recreation and Open Space

- Encourage siting recreational and open space uses and multi-use trails that are compatible with agriculture adjacent to the agricultural lands when planning for development adjacent to agricultural land uses.

- Recreational and open space uses can serve as an effective buffer between agriculture and development that is potentially incompatible with agriculture uses.

Project Conformance

The Proposed Project is considered consistent with Goal COS-6 and Policy COS-6.3, based on the following consideration:

- The Project design includes substantial on-site open space and encompasses a number of design elements that would provide additional open space and parks/trails, to enhance compatibility with and protect existing agricultural uses. This would include: (1) approximately 833 acres of biological open space, over 184 acres of pasture and other non-developed areas within an "Equestrian MUP" (refer to Section 1.2), which would preclude development such as grading, paving and construction in this area; and (2) additional open space, such as HOA lots and drainage/water quality basins, totaling nearly 78 acres; and (3) placement of approximately 16 acres of additional open space in the form of parks and trails.

COS-6.4 – Support Agricultural Easements and Preservation

- Support the acquisition or voluntary dedication of agriculture conservation easements and programs that preserve agricultural lands.

Project Conformance

The Proposed Project is considered consistent with Goal COS-6 and Policy COS-6.4, based on the following consideration:

- The Proposed Project would support the acquisition/utilization of agricultural conservation easements and protection of agricultural resources through proposed mitigation for identified agricultural impacts. Specifically, this would entail acquisition of appropriate areas within conservation easements established under the County Purchase of Agricultural Conservation Easement (PACE) Program, and/or purchasing other off-site agricultural lands or easements that conform with the County Agricultural Guidelines (pursuant to County approval).

Land Use Element

Goal Number 6 of the General Plan Land Use (LU) Element is intended to provide a balance between development and the "…natural environment, scarce resources, natural hazards and the unique character of individual communities." The associated applicable Policy, LU-6.4, Sustainable Subdivision Design, is intended to require that residential subdivisions be planned to conserve open space and natural resources, and protect agricultural operations (as well as other non-agricultural-related efforts).

Project Conformance

The Proposed Project is considered consistent with Goal LU-6 and Policy LU-6.4, based on the following considerations:

- The proposed project would implement applicable elements of this policy related to protecting agricultural operations through efforts such as conservation of extensive open space and equestrian buffers, and use of site design parameters to avoid/limit potential agricultural conflicts (e.g., lot sizes, locations and clustering, as described above in this section).

Goal Number 7 of the General Plan LU) Element is intended to provide "A land use plan that retains and protects farming and agriculture as beneficial resources that contribute to the County's rural character." The associated Policy, LU-7.1, Agricultural Land Development, is intended to "Protect agricultural lands with lower density land use designations that support continued agricultural operations."

Project Conformance

The Proposed Project is considered consistent with Goal LU-7 and Policy LU-7.1, based on the following considerations:

- The Project design includes substantial on-site open space, and encompasses a number of design elements intended to provide additional open space and buffers, and/or to enhance local rural/agricultural character and retain and protect existing agricultural uses. Specifically, these include the designation of: (1) approximately 833 acres of biological preserve; (2) over 184 acres of pasture and other non-developed areas within an "Equestrian MUP" (refer to Section 1.2), which would preclude development such as grading, paving and construction in this area and provide extensive buffers; and (3) nearly 94 acres of open space for uses such as HOA lots, drainage/water quality basins, and parks/trails.

- Opportunities would be provided for uses on residential lots, such as private orchards, gardens and vineyards, to help enhance compatibility with and protect existing agricultural operations (refer to Sections 1.2 and 3.2.1).

- The Proposed Project design provides substantial (minimum 1,200 feet) setback distances from off-site agricultural uses for denser development areas (Planning Areas 1 and 2). Larger lots in Planning Area 3 and the Estate Residential Parcel also include generally large setbacks (minimum distances of 200 feet from orchards and 400 to 2,500 feet for other uses), as well as opportunities to further reduce potential interface conflicts through measures such as structure location/orientation (i.e., to provide setbacks), landscape/fence screening, fuel modification zone buffers and additional uses such as private orchards and gardens (as outlined above).

- In addition to the above design elements, the Proposed Project would conform with applicable elements of the County Agricultural Enterprises and Consumer Information Ordinance, as summarized above under the discussion of the General Plan Guiding Principle and described in more detail in Section 3.2.1.

Mobility Element

Goal Number 12 of the General Plan Mobility (M) Element is intended to provide "A safe, scenic, interconnected, and enjoyable non-motorized multi-use trail system developed, managed, and maintained according to the County Trails Program, Regional Trails Plan, and the Community Trails Master Plan." The portion of associated Policy, M-12.9, Environmental and Agricultural Resources, applicable to agriculture is intended to "Site and design specific trail segments to minimize impacts to sensitive environmental resources, ecological system and wildlife linkages and corridors, and agricultural lands."

Project Conformance

The Proposed Project is considered consistent with Goal M-12 and Policy M-12.9, based on the fact that proposed recreational trails are not located in areas within or immediately adjacent to existing agricultural uses, and would thus not adversely affect those uses or associated resources.

Safety Element

Goal Number 11 of the General Plan Safety (S) Element is to provide "Limited human and environmental exposure to hazardous materials that pose a threat to human lives or environmental resources." The associated Policy, S-11.5, Development Adjacent to Agricultural Resources, is intended to "Require development adjacent to existing agricultural operations in Semi-Rural and Rural Lands to adequately buffer agricultural areas and ensure compliance with relevant safety codes where pesticides or other hazardous materials are used."

Project Conformance

The Proposed Project is considered consistent with Goal S-11 and Policy S-11.5, based on the fact that proposed residential development includes applicable buffers for nearby agricultural uses, and required Project conformance with the County Agricultural Enterprises and Consumer Information Ordinance (as outlined above for the General Plan Guiding Principle and described in Section 3.2.1). Specifically, the noted buffers include (1) minimum buffers of 200 feet between the estate residential property (Lot 396) and nearby orchards (which typically do not entail substantial noise, dust, vector or chemical generation, refer to Section 3.2.1), and minimum buffers of 1,200 feet between other residential lots and orchards; (2) minimum buffers of 400 feet between residential lots and nursery operations; (3) minimum buffers of 2,500 feet between residential lots and greenhouses; (4) minimum buffers of 800 feet between residential lots and row/field crops; and (5) minimum buffers of 600 feet between residential lots and vineyards.

4.1.2 Bonsall Community Plan

Land Use Goals and Policies

Goal Number LU-5 of the Bonsall Community Plan is intended to ensure "The preservation of groundwater resources, community character and protection of sensitive resources in the Bonsall Community Planning Area." Associated Policy LU-5.2.2 requires that projects "Allow further reductions in minimum lot sizes…through Planned Development, Lot Area Averaging, or Specific Plan projects only when setbacks, building scale, and design are appropriate to retain the equestrian and agricultural community character in the area."

Project Conformance

The Proposed Project would be consistent with Goal LU-5 and related Policy 5.2.2, based on the following consideration:

- The Project design includes a number of elements intended to retain and enhance the equestrian and agricultural character of the area, including: (1) designation of 833 acres of biological preserve/open space and over 184 acres of pasture and other non-developed areas within an "Equestrian MUP" (refer to Section 1.2), which would preclude development such as

grading/paving/construction and preserve candidate soils in this area; (2) dedication of additional open space, such as HOA lots, drainage/water quality basins, and parks/trails totaling nearly 94 acres; and (3) use of extensive landscaping, buffers and fuel modification zones, along with opportunities for private orchards, gardens and vineyards on residential lots (refer to Sections 1.2 and 3.2.1).

Conservation and Open Space Goals and Policies

Goal Number COS-1.1 and Policy COS-1.1.4

Goal Number COS-1.1 of the Bonsall Community Plan addresses "The preservation of the unique natural and cultural resources of Bonsall and the San Luis Rey River and associated watershed, with continued support for its traditional rural and agricultural life-style." Associated Policy COS-1.1.4 requires "…development to be compatible with adjacent natural preserves, sensitive habitat areas, agricultural lands, and recreation areas, or provide transition or buffer areas."

Project Conformance

The proposed Project is considered consistent with Goal COS-1.1 and related Policy COS-1.1.4 based on the provision of appropriate site design elements, buffers/screening and opportunities to provide blending/compatibility with nearby agricultural uses, as outlined above under Community Plan Land Use Goals and Policies for Goal LU-5 and related Policy 5.2.2.

Goal Number COS-1.2 and Policies COS-1.2.2 and COS-1.2.3

Community Plan Goal COS-1.2 addresses "The continuation of agriculture as a prominent use throughout the Bonsall community", with related policies including:

- Policy COS-1.2.2 – Encourage the use of agriculture easements in the CPA, especially as part of the Conservation Subdivision Program, while maintaining community character with rural and semi-rural homes.

- Policy COS-1.2.3 – Require development to minimize potential conflicts with adjacent agricultural operations, through the incorporation of adequate buffers, setbacks, and project design measures to protect surrounding agriculture and support local and state right-to-farm regulations.

Project Conformance

The proposed Project is considered consistent with Goal COS-1.2 and related Policies COS-1.2.2 and 1.2.3., based on the following considerations:

- While the Proposed Project would not include designation of on-site agricultural easements, Project-related direct impacts to agricultural resources would be fully mitigated through required acquisition of easement credits through the County PACE Program (and/or other easement acquisitions acceptable to the County), as described in Section 2.0 of this report. The noted mitigation effort may include acquisition of up to approximately 19.1 acres of PACE mitigation credits that are available in the Bonsall area, which would contribute to the noted goal and policies by fostering the use of agriculture easements in the CPA. As a result, Project

implementation would not reduce the area or extent of agricultural operations within the County.

- The noted agricultural resources within the site, while determined to represent an "important agricultural resource" under the LARA Model analysis, have not encompassed active commercial agricultural operations since the December 2017 Lilac Fire (refer to Section 1.4).

- The Project design includes a number of elements intended to retain and enhance the rural and agricultural character of the area, including: (1) designation of 833 acres of biological preserve/ open space and over 184 acres of pasture and other non-developed areas within an "Equestrian MUP" (refer to Section 1.2), which would preclude development such as grading/paving/ construction in this area; (2) dedication of additional open space, such as HOA lots, drainage/ water quality basins, and parks/trails totaling nearly 94 acres; (3) use of extensive landscaping, buffers and fuel modification zones, along with opportunities for private orchards, gardens and vineyards on residential lots (refer to Section 1.2); and (4) Provision of applicable buffers for nearby agricultural uses, as outlined above under the General Plan Safety Element discussion and described in Section 3.2.1.

- In addition to the above design elements, the Proposed Project will conform with applicable requirements of the County Agricultural Enterprises and Consumer Information Ordinance, as outlined above for Community Plan Goal LU-5 and related Policy 5.2.2 and described in Section 3.2.1.

4.2 CONCLUSIONS

The Proposed Project would be consistent with applicable land use and agricultural goals/policies contained in the County General Plan and the Bonsall Community Plan. Specifically, such conformance would be provided through efforts including: (1) implementation of required mitigation for direct impacts to on- and off-site agricultural resources; (2) designation of extensive open space easements that would preclude development such as grading, paving and construction; (3) use of appropriate on-site land use types and lot sizes, appropriate lot and street design, appropriate setbacks/buffers, fuel modification zones, and fencing/landscaping as part of the Project design to enhance compatibility with existing or potential future off-site agricultural uses and designations; and (4) provision of notification to prospective property buyers regarding the potential for nearby agricultural activities and associated nuisance effects. In addition, while not proposed as part of the Project design or landscaping plans (and not required to address off-site interface conflicts), land uses such as private orchards, gardens and vineyards would be allowable within individual residential lots, allowing associated property owners an opportunity to provide enhanced rural/agricultural character and increase blending and screening in relation to nearby off-site agricultural uses.

5.0 CUMULATIVE IMPACTS

Cumulative impacts are those caused by the additive effects of impacts to agricultural resources from multiple projects over time. Individual impacts for a given project may be less than significant on an individual basis, although the additive (or cumulative) effect when viewed in connection with impacts from past, present and probable future projects may result in the significant loss or degradation of agricultural resources.

5.1 GUIDELINES FOR DETERMINATION OF SIGNIFICANCE

The guidelines for determining the significance of cumulative impacts are based on the same Guidelines used to determine project level impacts, except that the analysis considers the cumulative effects of impacts from the Proposed Project and applicable projects within the agricultural cumulative study area described below. Accordingly, the reader is referred to the discussions of significance Guidelines for project level impacts provided in Sections 2.2 and 3.1, as well as the following analysis of cumulative impacts.

5.2 ANALYSIS OF PROJECT EFFECTS

Pursuant to applicable CEQA requirements, the following analysis includes an assessment of potential cumulative impacts based on the "List of Projects Method," as defined in Section 15130(b)(1)(A) of the State CEQA Guidelines. Specifically, the List of Projects Method involves evaluating potential impacts from the Proposed Project in concert with other "past, present and probable future projects" within an established cumulative study area (as defined below).

The agricultural cumulative study area used in the following analysis is shown on Figure 11, and was generated on the basis of the following considerations: (1) applicable cumulative project locations relative to the Project site; (2) the presence of active agricultural activity or designations (e.g., Williamson Act contracts/preserves); (3) agricultural resource potential (e.g., the presence of high quality soils); (4) physical barriers such as steep or rocky terrain; and (5) cultural barriers such as major roadway corridors or substantial urban development. Based on these factors, the cumulative study area boundaries shown on Figure 11 reflect criteria including the Interstate 15 corridor to the east; large areas of open space/substantial topography to the southeast, west and north; and high-density urban development to the southwest.

Applicable projects (as identified by the County of San Diego) within the identified agricultural resource cumulative study area are also shown on Figure 11, with summary descriptions of the projects and identified agricultural resource data provided in Appendix E. Pursuant to the County Agricultural Guidelines (2015b), the analysis in Appendix E includes the following information: (1) a general description of agricultural resources within the cumulative project sites; (2) a preliminary determination of whether these sites include important agricultural resources based on specified LARA Model factors (i.e., soils, water and climate), and the inclusion of site-specific LARA Model results, if available; and (3) identification of specific LARA Model results if available, or generation of an estimate of direct and indirect impacts to agricultural resources for each cumulative project site based on project size, density and the extent of on- and off-site agricultural resources.

Based on review of County of San Diego project files (County 2016b), analysis of applicable databases (e.g., CDC and NRCS websites), and field reconnaissance efforts, agricultural resources and associated potential impacts identified for the listed projects in Appendix E and on Figure 11 include areas of CDC-designated Prime Farmland and Farmland of Statewide Importance candidate soils (CDC candidate soils). As noted in Appendix E, for cumulative projects that are already developed and do not have site-specific LARA Model (or other agricultural analysis) results, associated impact footprints and CDC candidate soil mapping were used to calculate impacts to agricultural resources, while a number of assumptions were made regarding the extent of agricultural impacts to provide a more conservative analysis. Specifically, for larger sites/residential lots (i.e., two acres or more), half of the total area was assumed to be impacted through construction of buildings and related improvements (e.g., landscaping and swimming

pools). The assumption that half of the noted lot types would be impacted is considered conservative, as it is common in San Diego County for two-acre or larger lots to encompass agricultural uses on more than half of the total lot area (with corresponding impacts thus totaling less than half the lot area). Similarly, for smaller sites/lots and non-residential development, the entire project site was generally (and conservatively) assumed to be impacted (unless specific information to the contrary was available). Based on these assumptions and additional information provided in this report and in Appendix E, cumulative impact totals and significance conclusions are provided below for CDC candidate soils within the described cumulative study area, as well as for existing agriculture, Williamson Act contract lands, and active farm sites within the County.

CDC Prime Farmland and Farmland of Statewide Importance Candidate Soils

Cumulative impacts to CDC candidate soils within the associated study area, including the Proposed Project and applicable off-site cumulative projects (i.e., those with identified impacts to candidate soils), would encompass a total of approximately 358.25 acres as outlined below (refer to Figure 11 and Appendix E).

- The Proposed Project would impact a total of approximately 266.72 acres of CDC candidate soils.
- An unnamed project (No. 1 on Figure 11 and in Appendix E) would impact approximately 0.75 acre of CDC candidate soils.
- The Bar Ranch TM project (No. 2 on Figure 11 and in Appendix E) would impact approximately 0.75 acre of CDC candidate soils.
- The McDonald's Fallbrook project (No. 3 on Figure 11 and in Appendix E) impacted approximately 0.1 acre of CDC candidate soils.
- The Fallbrook Assisted Living and Senior Living projects, located on a single site (Nos. 4 and 5 on Figure 11 and in Appendix E), impacted approximately 2.5 acres of CDC candidate soils.
- The Carson TPM project (No. 7 on Figure 11 and in Appendix E) would impact approximately 4.77 acres of CDC candidate soils.
- The Fallbrook Oaks Revised TM project (No. 8 on Figure 11 and in Appendix E) would impact approximately 13 acres of CDC candidate soils.
- The Daniels Gray Rabbit Hollow project (No. 9 on Figure 11 and in Appendix E) would impact approximately 10.8 acres of CDC candidate soils.
- The Green Canyon North TM project (No. 10 on Figure 11 and in Appendix E) would impact approximately 33.33 acres of CDC candidate soils.
- The L-15652 G&F Properties project (No. 11 on Figure 11 and in Appendix E) would impact approximately 11.63 acres of CDC candidate soils.
- The Zephyr Patterns project (No. 12 on Figure 11 and in Appendix E) would impact approximately 0.5 acre of CDC candidate soils.

Ocean Breeze Ranch

Project Boundary
Agricultural Cumulative Study Area
County Boundary

Cumulative Projects

1. Unamed Project, PDS2011-4700-15625
2. Bar Ranch TM-5293 R
3. McDonald's Fallbrook
4. Fallbrook Assisted Living Center
5. Fallbrook Senior Living
6. County Project Grand Traditions GPA
7. Carson 4 Lot Plus Remainder TPM
8. Fallbrook Oaks Revised TM 5449 RPL1
9. Daniels Gray Rabbit Hollow TM-5364 R
10. Green Canyon North TM 5553
11. L-15652 G&F Properties
12. Zephyr Partners I-15 STP 11-002
13. Jackson Ranch TPM
14. Ramona TPM
15. Verizon Winter Crest MUP
16. SJC Minor Subdivision 2 Lots TPM 211
17. Dai Dang Meditation Center MUP

Riverside County
San Diego County
N Stage Coach Lane
Yucca Road
S Old Highway 395
Rice Canyon Road
W Elder Street
E Fallbrook Street
Old Stage Road
Mcdonald Road
Reche Road
Mardavido Lane
Fallbrook Road
S Mission Road
Winter Haven Road
Pala Mesa Drive
Pala Road
Olive Hill Road
Morro Hills Road
Via Monserate
W Lilac Road
Camino Del Rey
Vandegrift Boulevard
North River Road
Mission Avenue
Dentro De Lomas Road
E Vista Way
Gopher Canyon Road
Old Castle Road
15

0 6,000 Feet

Source: Aerial (Esri 2016).

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HELIX Environmental Planning

Agricultural Cumulative Study Area

Figure 11

- The Jackson Ranch TPM project (No. 13 on Figure 11 and in Appendix E) would impact approximately 10 acres of CDC candidate soils.

- The Ramona TPM project (No. 14 on Figure 11 and in Appendix E) would impact approximately 0.75 acres of CDC candidate soils.

- The Verizon Winter Crest MUP project (No. 15 on Figure 11 and in Appendix E) would impact approximately 0.9 acre of CDC candidate soils.

- The SJC Minor Subdivision project (No. 16 on Figure 11 and in Appendix E) would impact approximately 1.5 acres of CDC candidate soils.

- The Dai Dang Meditation Center MUP project (No. 17 on Figure 11 and in Appendix E) would impact approximately 0.25 acre of CDC candidate soils.

The described cumulative impacts to CDC candidate soils would represent approximately 2.5 percent of the total area of CDC candidate soils within the cumulative study area (i.e., 358.25 out of 14,290.83 acres). Due to the small percentage of CDC candidate soils that would be directly affected by the cumulative projects (including the Proposed Project), the associated cumulative impact is considered less than significant (with the Proposed Project and applicable cumulative projects also required to implement associated mitigation for direct impacts to candidate soils that would further reduce the related cumulative impact).

Cumulative Impacts to Existing Agriculture

Based on the information and assumptions on agricultural resource impacts provided in Appendix E, the Proposed Project, in concert with other identified cumulative projects, would result in the total loss of up to approximately 423.6 acres. This would include 378.5 acres of agricultural uses present onsite prior to the December 2017 Lilac Fire (refer to Section 1.4), and 45.1 acres of agricultural uses associated with the other cumulative projects (refer to Appendix E). The described loss of 423.6 acres of existing agricultural uses within the agricultural cumulative study area would not be cumulatively significant, based on the following considerations:

- The total area of active agriculture in the cumulative study area (as depicted on Figure 5) is approximately 14,496.97 acres. The described loss of 423.6 acres would represent approximately 2.9 percent of this total. As a result, the Project agricultural cumulative study area is not “under significant pressure to convert to non-agricultural uses” as outlined in Section 5.2 of the County Agricultural Guidelines.

- The total areas of active agriculture in the County during 2017 and 2016 were 243,029 and 250,720 acres, respectively (County of San Diego 2018b, 2017b), with the noted impact of 423.6 acres representing approximately 0.2 percent of these totals.

Cumulative Impacts to Williamson Act Contract Lands

As shown in Appendix E, Cumulative Project No. 11 (L-15652 G&F Properties) would impact an 11.63-acre Williamson Act Contract designation (refer also to Figures 10 and 11). This would represent approximately two percent of the total acreage of Williamson Act Contract lands within the cumulative

study area (i.e., 11.63 out of 585.4 acres), and would not be cumulatively significant (with no Williamson Act Contract lands affected by the Proposed Project).

Cumulative Impacts to Active Farm Sites

The cumulative projects described above and in Appendix E would result (or have resulted) in a reduction of up to six active farm sites within the cumulative study area. Specifically, this potentially includes five orchard sites (cumulative project Nos. 9, 10, 13, 15 and 16), and one nursery site (cumulative project No. 11). Because the Proposed Project site included distinct operations for orchards, cut flowers and oat hay prior to the 2017 Lilac Fire (refer to Section 1.2), a total loss of three active farm sites is assumed. The loss of up to 9 total active farm sites within the cumulative study area (including from the Proposed Project) would represent approximately 0.2 percent of the existing Countywide farm sites in 2015 (i.e., 9 out of "over 5,700" farms, County 2017c). As a result, associated impacts to active farm sites within the County would not be cumulatively significant.

5.3 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Because no significant cumulative impacts to agricultural resources were identified, associated mitigation measures and design considerations are not required or proposed.

5.4 CONCLUSIONS

Pursuant to the above discussions in Sections 5.2 and 5.3, implementation of the identified cumulative projects (including the Proposed Project) would not result in significant cumulative impacts to CDC candidate soils, existing agriculture, Williamson Act contract lands, or farm sites. Accordingly, no mitigation measures or design considerations are required.

6.0 SUMMARY OF PROJECT IMPACTS AND MITIGATION

The Proposed Project would result in approximately 244 acres of significant direct impacts to on- and off-site important agricultural resources, based on the results of the LARA Model analysis and related discussions described in Section 2.0. Accordingly, Pursuant to County Agricultural Guidelines, the Project applicant would be required to: either: (1) acquire 244 acres of off-site mitigation credits via the County PACE Program; or (2) acquire other (non-PACE) off-site agricultural lands or easements totaling 244 acres that conform with the County Agricultural Guidelines (with County approval).

The Proposed Project would not result in significant indirect impacts to existing off-site agricultural operations/resources including orchards, nurseries, row/field crops, greenhouses, vineyards, or Williamson Act contract lands, based on intervening distances from off-site agricultural uses, Project design features such as extensive open space and landscaping/screening, and opportunities for private orchards/gardens/vineyards on residential lots (as described in Sections 3.2 and 3.3).

Potential interface impacts with surrounding agricultural operations related to theft/vandalism and the generation of nuisance factors such as noise, odor and dust would also be less than significant as described in Section 3.2., These potential issues would be further reduced through Proposed Project design features, including the inclusion of larger lots, open space, landscaping, setbacks/buffers, and

fuel modification zones. Opportunities for private orchards, gardens and vineyards would also be provided on residential lots, with related benefits from enhanced rural/agricultural character and increase blending and screening in relation to nearby off-site agricultural uses. In addition, the Project would implement required conformance with the Agricultural Enterprises and Consumer Information Ordinance to protect surrounding agricultural uses from resident nuisance complaints.

Implementation of the identified cumulative projects (including the Proposed Project) would not result in significant cumulative impacts to CDC candidate soils, existing agriculture, Williamson Act contract lands, or farm sites.

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8.0 LIST OF PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

8.1 LIST OF PREPARERS

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Appendix A

LARA Model Instructions

3.1 LARA Model Instructions[6]

Application of the LARA model is intended for use in evaluating the importance of agricultural resources when it is determined that a discretionary project could adversely impact agricultural resources located onsite. The LARA model takes into account the following factors in determining importance of the agricultural resource:

Required Factors:	**Complementary Factors:**
Water	Surrounding Land Uses
Climate	Land Use Consistency
Soil Quality	Topography

Directions for determining the rating for each LARA model factor are provided in sections 3.1.1 through 3.1.6 of this document. Upon rating each factor, it is necessary to refer to Table 2, Interpretation of LARA Model Results, to determine the agricultural importance of the site.

Table 2. Interpretation of LARA Model Results

LARA Model Results			LARA Model Interpretation
Possible Scenarios	**Required Factors**	**Complementary Factors**	
Scenario 1	All three factors rated high	At least one factor rated high or moderate	The site is an important agricultural resource
Scenario 2	Two factors rated high, one factor rated moderate	At least two factors rated high or moderate	
Scenario 3	One factor rated high, two factors rated moderate	At least two factors rated high	
Scenario 4	All factors rated moderate	All factors rated high	
Scenario 5	At least one factor rated low importance	N/A	The site is *not* an important agricultural resource
Scenario 6	All other model results		

Data Availability

To complete the LARA model, various data sources are needed. The most efficient approach to completing the model is through analysis within a GIS. To facilitate this approach, the GIS data layers required to complete the LARA model are available upon request from DPLU. Available data sources include: groundwater aquifer type, Generalized Western Plantclimate Zones or "Sunset Zones", and Prime Farmland and

[6] Various data sources referenced in this document are available from DPLU in hard copy format (maps) or in digital format for use within a Geographic Information System (GIS). Obtaining various data sources will be required to determine the importance of the resource.

Farmland of Statewide Importance soil candidates. Other data sources are available from the SANGIS webpage at http://www.sangis.org/.

3.1.1 Water

The water rating is based on a combination of a site's CWA service status, the underlying groundwater aquifer type and the presence of a groundwater well (Table 3). Due to the variability of well yields and the potential for groundwater quality problems to adversely impact the viability of the well for agricultural purposes, the water factor allows for a reduction in the water rating based on site specific well yield and quality data, if that data is available (Table 4).

Table 3. Water Rating [7]

County Water Authority (CWA) Service Status	Groundwater Aquifer Type and Well Presence	Rating
Inside CWA service area with existing water infrastructure connections and a meter	Any groundwater aquifer type	High
Inside CWA service area with infrastructure connections to the site, but no meter has been installed	The site is located in an Alluvial or Sedimentary Aquifer *and* has an existing well	High*
	The site is located in an Alluvial or Sedimentary Aquifer, but has no existing well	Moderate*
	The site is located on Fractured Crystalline Rock and has an existing well	Moderate*
	The site is located on Fractured Crystalline Rock, but has no existing well	Low*
Outside CWA or inside CWA but infrastructure connections are not available at the site and no meter is installed	The site is located in an Alluvial or Sedimentary Aquifer *and* has an existing well	Moderate*
	The site is located in an Alluvial or Sedimentary Aquifer, but has no existing well	Low*
	The site is located on Fractured Crystalline Rock (with or without a well)	Low*
	The site is located in a Desert Basin (with or without a well)	Low*

*These water ratings may be reduced based on available groundwater quantity and quality information, in accordance with Table 4. If no additional groundwater quantity or quality data is available, the ratings above shall apply.

[7] If more than one underlying groundwater aquifer type exists at a site, usually the aquifer type that could produce the most water should be used to obtain the water rating. If it would be more reasonable to apply the rating based on the aquifer that would produce less water, a clear justification and reason for doing so must be provided.

Water Quality and Quantity Limitations

Site specific limitations to groundwater availability and quality exist and can lower the overall water rating of a site when data is available to support the limitation. Sites with imported water availability may not receive a lower water rating based on groundwater quality or yield data. Table 4 outlines potential water availability and quality limitations and the associated effect on the LARA model water rating.

Table 4. Groundwater Availability and Quality Effects on Water Rating

Groundwater Availability and Quality	Effect on Water Rating
The site has inadequate cumulative well yield (<1.9 GPM per acre of irrigated crops); TDS levels above 600 mg/L; or another documented agricultural water quality or quantity limitation exists	Reduces water rating by one level (i.e. from high to moderate or from moderate to low)

A determination of inadequate cumulative well yield as stated in Table 4 means that a site's well cannot produce at least enough water for each acre of irrigated crops at the site. At least 1.9 GPM is required per acre of irrigated crops, equating to production of 3 Acre Feet/Year (AFY) based on the following conversion factor: 1 AFY = 325,851 Gallons per Year / 365 days / 1440 minutes = 0.62 GPM. Cumulative well yield means that the combined yield of all wells on site may be summed to meet the required groundwater yield. As an example, if a site has 5 acres of irrigated crops, then production would need to be at least 9.5 GPM to produce enough water to irrigate the 5 acres, equating to approximately 15 AFY. If residence(s) exist on the project site, the groundwater analysis must demonstrate that an additional supply of 0.5 AFY can be achieved to account for residential water use associated with each existing onsite residence. To allow a reduction in the water quality score, TDS levels above 600 mg/L must be documented. If other documented water quality limitations exist that are not captured in the water quality measure of TDS, the water quality data must be provided and an associated water rating reduction justified. Although these requirements assume that water needs are consistent for a crop throughout the year while water requirements are typically higher in the dryer months, average annual required yield is used as the best available general measure of the adequacy of groundwater yields.

The quality and availability of imported water is not included as a factor to allow a reduction in the water rating due to an assumption that the MWD will continue to deliver water with the 500 mg/L TDS objective. However, it should be recognized that the degradation of the quality of Colorado River water is a known issue that could preclude the production of certain crops in the future. If in the future, the MWD is unable to meet their adopted water quality objectives, a similar reduction for imported water quality may need to be developed for consideration in the water score. Similarly, there is uncertainty regarding the continued future reliability of agricultural water deliveries based on various external issues that may affect local imported water supply such as protection of the Salton Sea and the stability of the Sacramento/San Joaquin Delta. As the impacts from external sources to local agricultural water deliveries become realized, the treatment of the water score in this document may need to be reevaluated.

Water Rating Explanation

Sites with availability of imported water always receive the highest water rating regardless of groundwater availability because the availability of imported water is essential for the long term viability of agriculture due to the limited natural rainfall and limited availability of groundwater resources in the County. Sites within the CWA service area that have no existing water meter, but that have water infrastructure connections to a site (in or near an adjacent street), are assigned a higher water rating than sites without existing water infrastructure connections. This is because the cost of extending off-site water infrastructure and obtaining a water meter is much higher than only obtaining a water meter and constructing onsite infrastructure connections to existing adjacent imported water infrastructure. Furthermore, the presence of existing imported water infrastructure adjacent to a site is a good indication that imported water is likely to become available to the site in the future (more likely than for a site far from infrastructure for imported water).

The underlying groundwater aquifer type and the presence of a well are two additional factors that affect the water rating. In general, sites underlain by an alluvial or sedimentary aquifer receive the highest ratings because these substrates have a much greater capacity to hold water than fractured crystalline rock. A site underlain by an alluvial or sedimentary aquifer with an existing well receives a higher rating than a site underlain by these geologic formations but having no existing well because of the cost associated with well installation. Well installation costs are added to the initial capital outlay required to begin an agricultural operation, thereby reducing the water rating if no well is present. The availability of groundwater in fractured crystalline rock is highly uncertain. However, a site underlain by fractured crystalline rock that has an existing well and is located adjacent to imported water infrastructure receives a moderate rating to take into account the cost of well installation, and the increased likelihood that imported water may become available at the site in the near future. Additionally, while groundwater yield in fractured crystalline rock is generally limited compared to other aquifer types, it can provide a good source of groundwater, especially in valley areas where there may be saturated residuum overlying the fractured crystalline rock. Sites with a well located on fractured crystalline rock, but without imported water infrastructure connections to the site, always receive a low rating because such sites would likely be reliant on a limited groundwater resource for the foreseeable future.

Nearly all agriculture in the desert basins is located in Borrego Valley, where documented groundwater overdraft conditions limit the long-term sustainability of agricultural use. A site located in a desert basin receives a low water rating due to the absence of imported water, and low groundwater recharge rates, which can easily result in groundwater overdraft conditions as documented in Borrego Valley, where extraction rates far exceed natural recharge. The Borrego Municipal Water District is taking measures to reduce water use in the basin through encouraging the fallowing of agricultural land. In addition, the County of San Diego requires proposed projects to mitigate for significant impacts to groundwater supply in accordance with CEQA. Mitigation may be achieved through the fallowing of agricultural land. These factors make preservation of agriculture in Borrego Valley infeasible in the long term when

considering the need to reduce overall groundwater use to protect the public health and the sustainability of the community.

Groundwater Quantity and Quality Explanation

The following discussion explains the reasoning behind the water rating reductions detailed in Table 4, Groundwater Availability and Quality Effects on Water Rating. The lack of a well with adequate yield (1.9 GPM for each acre of irrigated crops) reduces the water rating by one factor. This standard is based on the well yield needed to achieve production of 3 AFY per acre, an average crop irrigation requirement for crops produced locally (Table 5).

Table 5. Crop Water Use Averages

Crop	Typical Water Usage Per Acre (AFY)
Indoor Flowering and Foliage Plants	3-4
Ornamental Shrubs and Trees	3
Avocados	3
Bedding Plants	3
Cut Flowers	2-3
Tomatoes	2
Citrus	2.5-3
Poinsettias	3-4
Strawberries	3
Average	**3**

Source: UC Cooperative Extension, County of San Diego

A well with poor water quality (as measured by TDS levels above 600 mg/L or another documented water quality limitation) may reduce the water rating by one factor to account for agricultural limitations associated with using poor quality water for crop production. Groundwater with TDS concentrations above 600 mg/L is the guideline for allowing a reduction in the water factor based on available research on the effects of TDS on crop production, with specific focus on the effects on crops important to the San Diego region. In general, as TDS levels rise, water has diminishing value for agricultural use as it can restrict the range of crops that can be irrigated with the water and increases the cost of irrigation system maintenance.

According to the San Diego County Water Authority Agricultural Irrigation Water Management Plan, TDS levels above 500 mg/L are problematic for many of the subtropical crops produced in San Diego County, and TDS levels over 1,000 mg/l are virtually unusable for many of the subtropical crops grown here (2001). While TDS concentrations above 500 mg/L can be problematic for many subtropical crops, concentrations above 600 mg/L was selected as the guideline to take into account the already elevated TDS concentrations in imported water sources. Another study (Peterson, 1999) identified the TDS tolerance of selected crops. Field crops such as oat hay, wheat hay and barley were found to tolerate water with TDS levels up to 2,500

mg/L, but these are among the lowest value crops produced in the County. Strawberries were found to be intolerant to TDS levels greater than 500 mg/L; apples, grapes, potato, onion, and peppers slightly tolerant to TDS levels up to 800 mg/L; and cucumbers, tomatoes, and squash moderately tolerant to TDS levels up to 1,500 mg/L. The Florida Container Nursery BMP Guide prepared by the University of Florida Agricultural Extension (2006) identified TDS levels and the associated degree of problem that will be experienced for microirrigated container nursery production at different TDS levels. TDS of 525 mg/L or less was identified as producing no problems, TDS from 525 to 2100 mg/L having increasing problems, and TDS greater than 2100 mg/L having severe problems. High levels of TDS can be overcome through planting more salt resistant crops; however salt resistant crops are typically lower in value and would not produce the economic returns necessary to sustain a viable farming industry in San Diego County (high cost of production and land generally require production of high value crops). In general as TDS levels rise, crop yields decline, maintenance of irrigation systems becomes more difficult, and the range of crops (particularly high value crops) that can be supported is reduced.

In summary, TDS levels in groundwater above 600 mg/L substantially impair the water as a source of irrigation for agriculture, justifying a reduction in the water rating by one factor to account for the potential for reduced yields, increased difficulty in maintaining irrigation systems, and reduction in the range of crops that can be produced.

It is important to note that TDS is only one measure of water quality and does not differentiate between the various types of dissolved solids or contaminants that may be present in water. High levels of certain constituents can cause severe problems for agricultural production. For example, high chloride content can damage certain crops, while nitrates can cause problems for livestock. If specific documented limitations exist that reduce the viability of the water supply for agriculture, the water rating should be reduced. The quality of imported water is not considered because it is assumed that the MWD will deliver water with a maximum TDS of 500 mg/L, their adopted TDS objective for imported water deliveries.

3.1.2 Climate

Ratings associated with each Generalized Western Plantclimate Zone or "Sunset Zone" are included in Table 6, Climate Rating. The table identifies and describes each zone and justification for the associated rating.[8] Detailed descriptions of the Sunset Zones in San Diego County are included in Attachment B.

[8] All Sunset Zones in the County are not included in the table. Zone 22 is a small area that occurs entirely within Camp Pendleton, therefore no rating is assigned to this zone. Zone 24 is the maritime influenced zone. Only limited portions of unincorporated communities exist in this zone (County Islands in National City and the west Sweetwater area). Although this zone is valuable for certain high value crops, it is not assigned any importance rating due to the very small area of unincorporated land that occurs in this zone and the fact that the land is fully urbanized.

Table 6. Climate Rating

Climate (Sunset Zone) Description	Rating	Justification
Zone 23 represents thermal belts of the Coastal Areaclimate and is one of the most favorable for growing subtropical plants and most favorable for growing avocados. Zone 23 occurs in coastal incorporated cities and also occurs in the unincorporated communities of Fallbrook, Rainbow, Bonsall, San Dieguito, Lakeside, western portions of Crest and Valle De Oro, Spring Valley, Otay, and western portion of Jamul-Dulzura.	**High**	Zone 23 is rated high because this climate zone is the most favorable for growing some of the County's most productive crops. Year round mild temperatures allow year round production and the proximity to urban areas and infrastructure facilitates efficient delivery to market.
Zone 21 is an air drained thermal belt that is good for citrus and is the mildest zone that gets adequate winter chilling for some plants. Low temperatures range from 23 to 36 degrees F, with temperatures rarely dropping far below 30 degrees.	**High**	Zone 21 is rated high because of the mild year round temperatures and lack of freezing temperatures that allow year round production of high value crops. The importance of this zone is also related to the conversion pressure that exists due to urban encroachment. Preserving agriculture in Zone 21 is essential to maintain the high returns per acre that are common in this County. Climate is the essential factor that allows high value production. The loss of significant agricultural lands in Zone 21 would eventually relegate agriculture to areas further east where most of the County's high value crops cannot be viably produced. Zone 21 is also favorable due to its location close to urban areas and transportation infrastructure which facilitates product delivery to market.
Zone 20 is a cold air basin that may be dominated by coastal influence for a day, week or month and then may be dominated for similar periods of time by continental air. Over a 20 year period, winter lows in Zone 20 ranged from 28 to 23 degrees F.	**High**	Zone 20 occurs the Ramona area. Citrus groves are common in Zone 20 in addition to a concentration of animal agriculture operations and vineyards. Most of Zone 20 falls within the 89,000-acre Ramona Valley viticultural area which was designated as its own appellation in 2006 and contains 17 vineyards currently cultivating an estimated 45 acres of wine grapes. The distinguishing factors of the Ramona Valley viticultural area include its elevation, which contrasts with the surrounding areas, and climatic factors related to its elevation and inland location. Due to the favorable climate, proximity to urban areas, and its potential to become a more widely recognized viticultural area, Zone 20 is rated as a climate of high importance.
Zone 19 is prime for citrus, and most avocadoes and macadamia nuts can also be grown here.	**High**	Zone 19 is rated high due to the suitability for growing the County's high value crops and its location close to urban areas.

Zone 18 is a mountainous zone subject to frosts. Citrus can be grown in Zone 18, but frosts require the heating of orchards to reduce fruit loss. Zone 18 is the home of Julian's apple orchards.	**Moderate**	Zone 18 is assigned a medium rating due to its frost susceptibility, reducing its potential for supporting year round production and frost sensitive crops. However, the ability to produce crops that require winter chilling makes it a climate zone of moderate importance.
Zone 13 covers low elevation desert areas (considered subtropical) and is the most extensive of the County's desert Plantclimate zones. Zone 13 includes the extensive agricultural uses in the Borrego Valley.	**Moderate**	Zone 13 is assigned a moderate rating due to the temperature extremes characteristic of this zone. These temperature extremes exclude some of the subtropicals grown in Zones 22 to 24, however numerous subtropicals with high heat requirements thrive in this climate such as dates, grapefruit, and beaumontia and thevetia (ornamentals).
Zone 11 is located below the high elevation Zone 3 and above the subtropical desert Zone 13.	**Low**	Zone 11 is assigned a low climate rating due the agricultural hazards of the climate including late spring frosts and desert winds.
Zone 3 occurs in the high elevation Palomar Mountains in addition to high elevation areas east of the Tecate Divide. These are locations where snow can fall and wide swings in temperature occur.	**Low**	Most of these lands are pubic lands, reducing their potential for commercial agriculture. The wide swings in temperature, including freezing temperatures in winter make this zone of low importance agriculturally. This zone is also far from transportation infrastructure; an important consideration for crop delivery to market.

While it is anticipated that the climate ratings would normally not be modified, it is important to acknowledge that microclimate conditions do exist that cannot be captured in the Sunset Zone definitions. For example, topography can create certain microclimate conditions such as frost susceptibility that could downgrade the climate importance of a site to marginal if frost tolerant crops cannot be grown at the site. Any downgrading or upgrading of a climate rating must be accompanied by site specific climate data to support the modification, and any identified climate limitations must be based on the range of crops that could be viable at the site. For example, if frost sensitive crops are the only crop identified to be viable at the site and the site would be subject to frequent frosts, this should be documented and a lower rating may be applied. It is not anticipated that climate modifications would be commonly used given the diversity of crops that a site would usually be able to support.

Sunset Zones are used as a standard measure of climate suitability due to the variability of microclimate conditions that the Sunset zones take into account. Recognizing that the Sunset Zones were not developed as a tool to determine the suitability for commercial agricultural production, their use is not intended to determine suitability for specific crops, rather they are a measure of overall climate suitability for the typical agricultural commodities produced in San Diego County. For example, the Sunset Zone designations take into account the USDA hardiness rating which identifies the lowest temperature at which a plant will thrive. Sunset Zones start with the USDA hardiness zones and add the effects of summer heat in ranking plant suitability for an area. The American Horticulture Society (AHS) heat zone map ranks plants for suitability to heat, humidity and dryness. The AHS heat zone map was developed under the direction of

Dr. H. Marc Cathey, who was instrumental in the organization of the USDA Plant Hardiness Map. Each AHS heat zone has "heat days," those days with temperatures of 86° F or above. 86° F is the point at which some plants suffer damage to cellular proteins. The USDA plant hardiness zone maps and/or the AHS heat zone map may be used to supplement the Sunset Zone information if the Sunset Zone descriptions are not accurate.

3.1.3 Soil Quality

The project's soil quality rating is based on the presence of Prime Farmland Soils or Soils of Statewide Significance (Attachment C) that are available for agricultural use and that have been previously used for agriculture. Land covered by structures, roads, or other uses that would preclude the use of the land for agriculture, are not typically considered in the soil quality rating. To determine the soil quality rating, the soil types on the project site must be identified. The soils data for the project site must be entered into Table 7, Soil Quality Matrix as detailed in the steps below:

Step 1.
Identify the soil types that are on the project site. Enter each soil type in Rows 1 through 13 of Column A. If the site has more soil types than available rows, add additional rows as needed.

Step 2.
Calculate the acreage of each soil type that occurs on the project site and enter the acreage of each in Column B. Enter the total acreage in Row 14, Column B. This number should equal the total acreage of the project site.

Step 3.
Calculate the acreage of each soil type that is unavailable for agricultural use[9] and enter the total in the corresponding rows of Column C.

Step 4.
Subtract the values in Column C from the acreages of each soil type identified in Column B. Enter the result in Column D.

[9] Soils unavailable for agricultural use include: 1) lands with existing structures (paved roads, homes, etc.) that preclude the use of the soil for agriculture, 2) lands that have been disturbed by activities such as legal grading, compaction and/or placement of fill such that soil structure and quality have likely been compromised (e.g., unpaved roads and parking areas), 3) lands that are primarily a biological habitat type that have never been used for agriculture, and 4) lands constrained by biological conservation easements, biological preserve, or similar regulatory or legal exclusion that prohibits agricultural use. The distinction between agriculture and biological resources is not always clear because agricultural lands commonly support sensitive biological species. Agricultural lands that incidentally support sensitive species should still be considered an agricultural resource; however, biological habitats that have never been used for agriculture should not be considered an agricultural resource. It is possible that non-native grasslands will be classified as both a biological resource and an agricultural resource since many non-native grasslands have been established based on a history of agricultural use.

Step 5.
Sum the acreage values in Column D and enter the total in Column D, Row 14.

Step 6.
Divide the acres of each soil type in Column D by the total acreage available for agricultural use (Column D, Row 14) to determine the proportion of each soil type available for agricultural use on the project site. Enter the proportion of each soil type in the corresponding row of Column E.

Step 7.
Determine whether each soil type is a soil candidate for Prime Farmland or Farmland of Statewide Importance. If yes, enter 1 in the corresponding row of Column F. If no, enter zero in the corresponding row of Column F.

Step 8.
Multiply Column E x Column F. Enter the result in the corresponding row of Column G.

Step 9.
Sum the values in Column G and enter the result in Column G, Row 15 to obtain the total soil quality matrix score.

Step 10.
Based on the total soil quality matrix score from Table 7, identify the corresponding soil quality rating using Table 8 Soil Quality Matrix Interpretation

Table 7. Soil Quality Matrix

	Column A	Column B	Column C	Column D	Column E	Column F	Column G
	Soil Type	Size of project site (acreage)	Unavailable for agricultural use	Available for agricultural use	Proportion of project site	Is soil candidate for prime farmland or farmland of statewide significance? (Yes = 1, No = 0)	Multiply Column E x Column F
Row 1							
Row 2							
Row 3							
Row 4							
Row 5							
Row 6							
Row 7							
Row 8							
Row 9							
Row 10							
Row 11							
Row 12							
Row 13							
Row 14	Total		Total				
Row 15						***Soil Quality Matrix Score***	

Table 8. Soil Quality Matrix Interpretation

Soil Quality Matrix Score	Soil Quality Rating
The site has a Soil Quality Matrix score ranging from 0.66 to 1.0 and has a minimum of 10 acres of contiguous Prime Farmland or Statewide Importance Soils	High
The site has a Soil Quality Matrix score ranging from 0.33 to 0.66 or the site has a minimum of 10 acres of contiguous Prime Farmland or Statewide Importance Soils	Moderate
The site has a Soil Quality Matrix score less than 0.33 and does not have 10 acres or more of contiguous Prime Farmland or Statewide Importance Soils	Low

Soil Quality Rating Justification

The presence of Prime Farmland Soils or Soils of Statewide Significance is used as the measure of quality soil in the LARA soil quality rating based on their use in defining soil candidates for the FMMP Farmland categories of Prime Farmland and Farmland of Statewide Importance. Soil candidates for the FMMP Prime Farmland designation are soils with the best combination of physical and chemical characteristics for the production of crops. Soil candidates for the FMMP Farmland of Statewide Importance designation are similar to the soil criteria for Prime Farmland, but include minor shortcomings, such as greater slopes or less ability to store soil moisture. Soil candidates for Farmland of Statewide Importance do not have any restrictions regarding permeability or rooting depth. Soil candidates for Farmland of Statewide Significance are included in this rating to capture quality soils with minor shortcomings that may not have been included, if the typical definition of Prime Agricultural Land as stated in Government Code Section 51201(c) was used. Soil criteria used in Government Code Section 51201(c) identifies any land with a LCC rating of I or II or a Storie Index Rating from 80 to 100 as land that meets the definition of prime agricultural land. Because San Diego County has limited quantities of soils that meet these criteria, locally defined NRCS soil candidates for Prime Farmland and Farmland of Statewide Importance are included to define quality soils in this locale given that 70% of these soils have LCC higher than I or II and 88% have SI ratings below 80. Details regarding the soil criteria that determine the applicability of a soil for the respective Farmland designation is included in Attachment C, Soil Candidate Criteria and Candidate Listing for Prime Farmland and Farmland of Statewide Importance.

Table 8, Soil Quality Matrix Interpretation, identifies high, moderate, or low importance ratings based on the soil quality matrix score from Table 7. The maximum possible soil quality matrix score is one and the minimum is zero because the score is based on the amount of the agricultural resources onsite that are Prime and Statewide Importance soil candidates. A site with a soil quality matrix score of 0.66 or higher means that two-thirds of the agricultural resources onsite have soils that meet the soil quality criteria for Prime Farmland or Farmland of Statewide Importance. A minimum of 10 contiguous acres is required for a site to be assigned the highest soil quality rating to reflect the need for high quality soils to be contiguous in order for them to be considered useful

agriculturally. If the site has a soil quality score from 0.33 to 0.66 or has 10 acres or more of contiguous soils that meet the soil quality criteria for Prime Farmland or Farmland of Statewide Importance, the site is assigned the moderate importance rating. If less than one-third of the site or less than 10 contiguous acres of the agricultural resources onsite have soils that meet the Prime or Statewide Importance soil criteria, the site is assigned the low importance rating for soil quality. A ten acre threshold is included in the ratings to capture the potential for a large project site to have a substantial quantity of high quality soils and still receive a low importance rating due to the project's size in relation to the acreage of quality soils. Ten acres is an appropriate acreage to use in this context because ten acres would typically be able to support a wide range of agricultural uses in San Diego County. Furthermore, to be eligible for a Williamson Act Contract in an Agricultural Preserve, the County of San Diego Board of Supervisor's Policy I-38 (Agricultural Preserves) recommends various minimum ownership sizes, with ten acres being the minimum, to be eligible for a contract. Ten acres is listed as the minimum size for various agricultural activities including poultry, tree crops, truck crops, and flowers. The requirement that the land be contiguous recognizes that small, scattered pockets of high quality soils are less valuable for agricultural use than an area of contiguous high quality soils.

3.1.4 Surrounding Land Use

Surrounding land use is a factor in determining the importance of an agricultural resource because surrounding land uses that are compatible with agriculture make a site more attractive for agricultural use due to lower expectations of nuisance issues and other potential impacts from non-farm neighbors. This factor also accounts for the degree to which an area is primarily agricultural, assigning a higher rating to areas dominated by agricultural uses than an area dominated by higher density, urban development. Surrounding land use is a complementary factor in the LARA model because the presence of compatible surrounding land uses can support the viability of an agricultural operation; however a lack of compatible surrounding land uses would not usually prohibit productive agriculture from taking place (depending on the type of production). Similarly, agriculture can be viable among urban uses, but its long term viability would generally be less than an agricultural operation conducting operations in an area dominated by agricultural uses because of lesser economic pressures to convert to urban uses. To determine the surrounding land use rating, the following information must be determined:

Step 1.
Calculate the total acreage of lands compatible with agricultural use[10] within the defined Zone of Influence (ZOI).[11] The location of agricultural lands can be determined using information from the DOC's Important Farmland Map Series, agricultural land use data available from the DPLU, aerial photography, and/or direct site inspection. Land within a ZOI that is observed to be fallow or with a history of agricultural use will usually be considered agricultural land, unless there is evidence that it has been committed to a non-agricultural use (such as having an approved subdivision map). The Department of Planning and Land Use may consult the Department of Agriculture, Weights and Measures if there are disputed interpretations.

Step 2.
Calculate the percentage of the acreage within the project's ZOI that is compatible with agricultural use.

Step 3.
Based on the proportion of lands within the ZOI that are compatible with agricultural use, identify the appropriate surrounding land use rating in accordance with Table 9, Surrounding Land Use Rating.

Table 9. Surrounding Land Use Rating

Percentage of Land within ZOI that is Compatible with Agriculture	Surrounding Land Use Rating
50% or greater	High
Greater than 25% but less than 50%	Moderate
25% or less	Low

Considering surrounding land uses within the ZOI is intended to provide a measurement of the long term sustainability of agriculture at the project site. Agriculture is generally

[10] Lands compatible with agricultural uses include existing agricultural lands, protected resource lands, and lands that are primarily rural residential. Protected resource lands are those lands with long-term use restrictions that are compatible with or supportive of agricultural uses including but not limited to Williamson Act contracted lands; publicly owned lands maintained as park, forest, open space, or watershed resources; and lands with agricultural, wildlife habitat, open space, or other natural resource easements that restrict the conversion of such land to urban or industrial uses. For the purposes of this factor rating, rural residential lands include any residential development with parcel sizes of two acres or greater and that contain elements of a rural lifestyle such as equestrian uses, animal raising, small hobby type agricultural uses, or vacant lands. Residential parcels with swimming pools, children's play areas, second dwelling units, or other accessory uses that occupy a majority of the usable space of a residential parcel should not be identified as land compatible with agriculture.

[11] Attachment F details the steps required to determine the Zone of Influence (ZOI). The ZOI methodology is taken from the Department of Conservation's Land Evaluation Site Assessment (LESA) model and includes a minimum area of ¼ mile beyond project boundaries and includes the entire area of all parcels that intersect the ¼ mile boundary. The ZOI developed by the Department of Conservation is the result of several iterations during development of the LESA model for assessing an area that would generally be a representative sample of surrounding land use. For example, a 160 acre project site would have a ZOI that is a minimum of eight times greater (1280 acres) than the project itself.

compatible with other agricultural land uses because they are more likely be tolerant of the typical activities and nuisances associated with agricultural operations than urban land uses would be. Primarily rural residential lands are included as a land use compatible with agriculture because rural residential lands are already common among agricultural uses and most active farms also have residences on the site. Although not all types of agriculture are compatible with rural residential land uses (i.e. confined animal facilities); many typical San Diego County farming operations are compatible with rural residential land uses as is evidenced by the existing viability of agricultural operations that are located among rural residential land uses. For example, in many North County communities, small parcels (two acres, for example) with a single family residence and a small orchard or other farming or equestrian use are common. These residential uses, due to their direct involvement in agriculture or a rural lifestyle, would tend to be more compatible with agriculture than a high density development where homeowners would be less likely to be directly involved in rural lifestyle activities (e.g. agriculture, equestrian, animal raising, etc.). Occupants of higher density residential uses are more likely to be disturbed by noise, dust, pesticides or other nuisances that do not fit with the peaceful perceptions of living in the countryside.

3.1.5 Land Use Consistency

The median parcel size associated with the project site compared to the median parcel size of parcels located within the ZOI is a complementary factor used in the LARA model. In order to determine the land use consistency rating for the project, the following information must be determined:

Step 1.
Identify the median parcel size associated with the proposed project if the proposed project consists of at least three parcels. If the proposed project consists of two parcels, use an average. If the proposed project consists of only one parcel, then no median or average is needed.

Step 2.
Identify the median parcel size of the parcels located within the project's ZOI.

Step 3.
Considering the project's median parcel size and the ZOI median parcel size, identify the land use consistency rating in accordance with Table 10.

Table 10. Land Use Consistency Rating

Project's median parcel size compared to ZOI median parcel size	Land Use Consistency Rating
The project's median parcel size is smaller than the median parcel size within the project's ZOI	High
The project's median parcel size is up to ten acres larger than the median parcel size within the project's ZOI	Moderate
The project's median parcel size is larger than the median parcel size within the project's ZOI by ten acres or more	Low

Land use consistency is used as a measure of importance to recognize the effect that surrounding urbanization has on the viability of ongoing agricultural uses and to recognize that as urbanization surrounds agricultural lands, opportunity costs[12] for agricultural operators increase, thus reducing the viability of an agricultural operation. A site surrounded by larger parcels indicates that the site is located in an area that has not already been significantly urbanized and the area is more likely to continue to support viable agricultural uses. On the other hand, a site surrounded by smaller parcels indicates a lower likelihood of ongoing commercial agriculture viability considering the greater expectations of land use incompatibilities that the site is likely to experience and the reduction in economic viability when considering forgone opportunity costs. The median parcel size is used instead of an average to account for the potential for a very large or very small parcel to exist that would skew the result if using an average.

3.1.6 Slope

To determine the Slope Rating for the site, the average slope for the area of the site that is available for agricultural use must be determined. Refer to Column D of Table 7, Soil Quality Rating Matrix, for the areas of the site considered available for agricultural use. When the average slope of the areas of the site that is available for agricultural use is determined, identify the corresponding topography rating as outlined in Table 11, below.

Table 11. Slope Rating

Average Slope	Topography Rating
Less than 15% slope	High
15% up to 25% slope	Moderate
25% slope and higher	Low Importance

[12] Opportunity cost is an economic term. It means the cost of something in terms of an opportunity foregone (and the benefits that could be received from that opportunity), or the most valuable foregone alternative. For example, if a land owner decides to farm his land, the opportunity cost is the value of one or more alternative uses of that land, such as a residential subdivision. If he continues to farm the land, the opportunity cost is the revenue that he does not receive from building houses. Thus, as opportunity costs rise, the viability of continuing the current action (i.e. agricultural use) decreases. This conclusion is based on the fact that agricultural use of land is primarily an economic decision. When factors, such as increased opportunity costs, make use of the land for agriculture less profitable than other uses, the long term viability of agriculture decreases.

Slope is included as a complementary factor in the LARA model to account for the importance that slope plays in the viability of a piece of land for agricultural production, a flat site allowing a greater range of potential agricultural uses and facilitating mechanization of operations. Gentle topography has other benefits such as reduced difficulty in managing irrigation runoff and reduced soil erosion as compared to more steep sites. Topography is not a required factor for a determination of importance because topography limitations can be overcome at a cost if the expected return on investment is high enough to warrant the expense (i.e. container based production, mass grading).

4.0 TYPICAL ADVERSE EFFECTS AND GUIDELINES FOR DETERMINING SIGNIFICANCE

4.1 Typical Adverse Effects

Typical adverse effects to agricultural resources are best considered in relation to the various types of impacts that are considered under CEQA: direct, indirect and cumulative. Direct impacts are straightforward: important agricultural resources are converted to a non-agricultural use, significantly reducing or eliminating the productive capacity of the land. Indirect effects are widely varied and require careful analysis of particular site conditions and farming operations. Indirect effects include significant impacts to active agricultural operations, Williamson Act Contracts, or to the viability of important agricultural resources. Indirect effects can result from growth inducement and the associated extension of infrastructure that can change rural character and increase the likelihood of agriculture urban interface conflicts. Indirect impacts can be caused by significant economic impacts to active agricultural operations that compromise their on-going viability and result in increased likelihood of conversion. Significant cumulative impacts result when a project's impacts are considerable when viewed in connection with the effects of past, present and probable future projects. Cumulative impacts are difficult to assess given the market driven and adaptable nature of agriculture. For example, a loss of agricultural land may occur in one area, while new land is converted to agriculture use elsewhere. Similarly, changes in agricultural commodity market prices could result in a shift in the type of agricultural commodities produced locally. Changes in the agricultural industry that result from external market factors could appear to be significant cumulative impacts to agriculture when they may only be a result of market adaptation to external economic conditions.

4.1.1. Direct Impacts

Direct impacts occur when a project would adversely impact locally important agricultural soils on a site that is determined to be important pursuant to the County LARA model. In San Diego County, important agricultural soils include not only soils with the USDA LCC ratings of I and II or Storie Index ratings of 80 or higher, but also includes soils of lesser quality as defined by the soil candidate listing for Prime Farmland and Farmland of Statewide Importance compiled by the USDA NRCS for San

Appendix B

Soil Quality Matrix Worksheet

Table B-1
SOIL QUANTITY MATRIX WORKSHEET – OCEAN BREEZE RANCH PROJECT

	Column A	Column B	Column C	Column D	Column E	Column F	Column G
	Soil Type	**Size of project site (acreage)**	**Unavailable for agricultural use**	**Available for agricultural use**	**Proportion of project site**	**Is soil candidate for prime farmland or farmland of statewide significance? (Yes = 1, No = 0)**	**Multiply Column E x Column F**
Row 1	BIC	24.65	U/D – 0.50 ESMT – 0.45 VEG – 4.43 Total = 5.41	19.24	0.024	1	0.024
Row 2	BID2	7.28	U/D – 0.14 Total = 0.14	7.14	0.009	1	0.009
Row 3	ClD2	6.54	U/D – 0.08 Total = 0.08	6.46	0.008	0	0.00
Row 4	ClG2	143.02	U/D – 2.98 ESMT – 0.35 VEG – 126.80 Total = 130.13	12.89	0.016	0	0.00
Row 5	CmE2	31.00	U/D – 0.52 VEG – 13.38 Total = 13.90	17.10	0.021	0	0.00
Row 6	CmrG	257.06	U/D –0.57 ESMT – 8.59 VEG –235.21 Total = 244.37	12.69	0.016	0	0.00
Row 7	FaC	34.45	U/D –3.63 ESMT – 0.12 Total =3.75	30,07	0.037	1	0.037
Row8	FaD2	18.63	U/D – 2.54 ESMT – 0.03 Total = 2.57	16.06	0.020	0	0.00
Row 9	FaE2	91.34	U/D – 2.25 ESMT – 0.39 VEG – 23.22 Total = 25.86	65.48	0.081	0	0.00
Row 10	FaE3	6.70	VEG – 5.11 Total = 5.11	1.59	0.002	0	0.00

Table B-1 (cont.)
SOIL QUANTITY MATRIX WORKSHEET – OCEAN BREEZE RANCH PROJECT

	Column A	Column B	Column C	Column D	Column E	Column F	Column G
	Soil Type	Size of project site (acreage)	Unavailable for agricultural use	Available for agricultural use	Proportion of project site	Is soil candidate for prime farmland or farmland of statewide significance? (Yes = 1, No = 0)	Multiply Column E x Column F
Row 11	FvD	30.77	U/D – 1.25 ESMT – 0.50 VEG – 8.39 Total = 10.14	20.63	0.026	0	0.00
Row 12	FvE	47.19	U/D – 2.23 VEG – 22.79 Total = 25.02	22.17	0.027	0	0.00
Row 13	GoA	13.99	U/D – 0.68 Total = 0.68	13.31	0.016	1	0.016
Row 14	PeA	16.99	U/D – 1.82 ESMT – 0.08 Total = 1.90	15.09	0.019	1	0.019
Row 15	PeC	110.36	U/D – 17.67 ESMT – 0.39 Total = 18.06	92.30	0.114	1	0.114
Row 16	PeD2	6.61	U/D – 0.16 ESMT – 0.08 VEG – 6.33 Total = 6.57	0.04	0	0	0.00
Row 17	RaC	13.97	U/D – 1.73 ESMT – 0.16 VEG – 1.11 Total = 3.00	10.97	0.014	1	0.014
Row 18	RaD2	28.08	U/D – 2.39 ESMT – 0.13 VEG –4.07 Total = 6.59	21.49	0.027	0	0.00
Row 19	RcD	2.81	U/D – 0.96 VEG – 1.70 Total = 2.66	0.15	0	0	0.00
Row 20	Rm	33.18	U/D – 4.59 ESMT – 0.01 VEG – 5.64 Total = 10.24	22.94	0.028	0	0.00

Table B-1 (cont.)
SOIL QUANTITY MATRIX WORKSHEET – OCEAN BREEZE RANCH PROJECT

	Column A	Column B	Column C	Column D	Column E	Column F	Column G
	Soil Type	**Size of project site (acreage)**	**Unavailable for agricultural use**	**Available for agricultural use**	**Proportion of project site**	**Is soil candidate for prime farmland or farmland of statewide significance? (Yes = 1, No = 0)**	**Multiply Column E x Column F**
Row 21	StG	31.19	U/D – 6.22 ESMT – 0.03 VEG – 1.15 Total = 7.4	23.79	0.029	0	0.00
Row 22	TuB	135.80	U/D – 7.87 ESMT –1.21 VEG – 13.13 Total = 22.21	113.59	0.140	1	0.140
Row 23	VaA	96.00	U/D – 5.97 ESMT – 0.16 VEG – 1.66 Total = 7.79	88.21	0.110	1	0.110
Row 24	VaB	13.90	U/D – 1.4 VEG – 0.77 Total = 2.17	11.73	0.015	1	0.015
Row 25	VsD	10.74	ESMT – 1.36 VEG – 9.05 Total = 10.41	0.33	0	0	0.00
Row 26	VsE	141.98	U/D – 11.26 ESMT – 0.35 VEG – 0.66 Total = 12.27	129.71	0.160	0	0.00
Row 27	VsE2	13.85	U/D – 0.27 ESMT – 1.75 VEG – 9.19 Total = 11.21	2.64	0.003	0	0.00

Table B-1 (cont.)
SOIL QUANTITY MATRIX WORKSHEET – OCEAN BREEZE RANCH PROJECT

	Column A	Column B	Column C	Column D	Column E	Column F	Column G
	Soil Type	**Size of project site (acreage)**	**Unavailable for agricultural use**	**Available for agricultural use**	**Proportion of project site**	**Is soil candidate for prime farmland or farmland of statewide significance? (Yes = 1, No = 0)**	**Multiply Column E x Column F**
Row 28	VsG	34.50	U/D – 1.30 VEG – 0.89 Total = 2.19	32.31	0.040	0	0.00
Total		**1,402.58[1]**		**808.82**			
Soil Quality Matrix Score							0.498

[1] This total may vary slightly from those in other portions of this report due to rounding.

U/D = Urban/Developed (roads, structures, etc.); ESMT = Easement right-of-way corridors for transmission lines, water lines, etc.

VEG = Sensitive vegetation habitats located in areas with no agricultural use/history, and including one or more of the following categories: coast live oak woodland; coastal sage-chaparral scrub; Diegan coastal sage scrub; Diegan coastal sage scrub - burned; Diegan coastal sage scrub - disturbed; flat-topped buckwheat scrub; freshwater marsh; herbaceous woodland; mule fat scrub; non-native grassland; southern cottonwood willow riparian forest; southern mixed chaparral; and southern willow scrub.

Soil Types

BIC	Bonsall sandy loam, 2 to 9 percent slopes
BID2	Bonsall sandy loam, 9 to 15 percent slopes, eroded
ClD2	Cieneba coarse sandy loam, 5 to 15 percent slopes, eroded
ClG2	Cieneba coarse sandy loam, 30 to 65 percent slopes, eroded
CmE2	Cieneba rocky coarse sandy loam, 9 to 30 percent slopes, eroded
CmrG	Cieneba very rocky coarse sandy loam, 30 to 75 percent slopes
FaC	Fallbrook sandy loam, 5 to 9 percent slopes
FaD2	Fallbrook sandy loam, 9 to 15 percent slopes, eroded
FaE2	Fallbrook sandy loam, 15 to 30 percent slopes, eroded
FaE3	Fallbrook sandy loam, 9 to 30 percent slopes, severely eroded
FvD	Fallbrook-Vista sandy loams, 9 to 15 percent slopes
FvE	Fallbrook-Vista sandy loams, 15 to 30 percent slopes
GoA	Grangeville fine sandy loams, 0 to 2 percent slopes
PeA	Placentia sandy loam, 0 to 2 percent slopes
PeC	Placentia sandy loam, 2 to 9 percent slopes
PeD2	Placentia sandy loam, 9 to 15 percent slopes, eroded
RaC	Ramona sandy loam, 5 to 9 percent slopes
RaD2	Ramona sandy loam, 9 to 15 percent slopes, eroded
RcD	Ramona gravelly sandy loam, 9 to 15 percent slopes
Rm	Riverwash
StG	Steep gullied land
TuB	Tujunga sand, 0 to 5 percent slopes
VaA	Visalia sandy loam, 0 to 2 percent slopes
VaB	Visalia sandy loam, 2 to 5 percent slopes
VsD	Vista coarse sandy loam, 9 to 15 percent slopes
VsE	Vista coarse sandy loam, 15 to 30 percent slopes
VsE2	Vista coarse sandy loam, 15 to 30 percent slopes, eroded
VsG	Vista coarse sandy loam, 30 to 65 percent slopes

Appendix C

Historic Aerial Photographs

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1938 Aerial Photograph

OCEAN BREEZE RANCH

HELIX Environmental Planning

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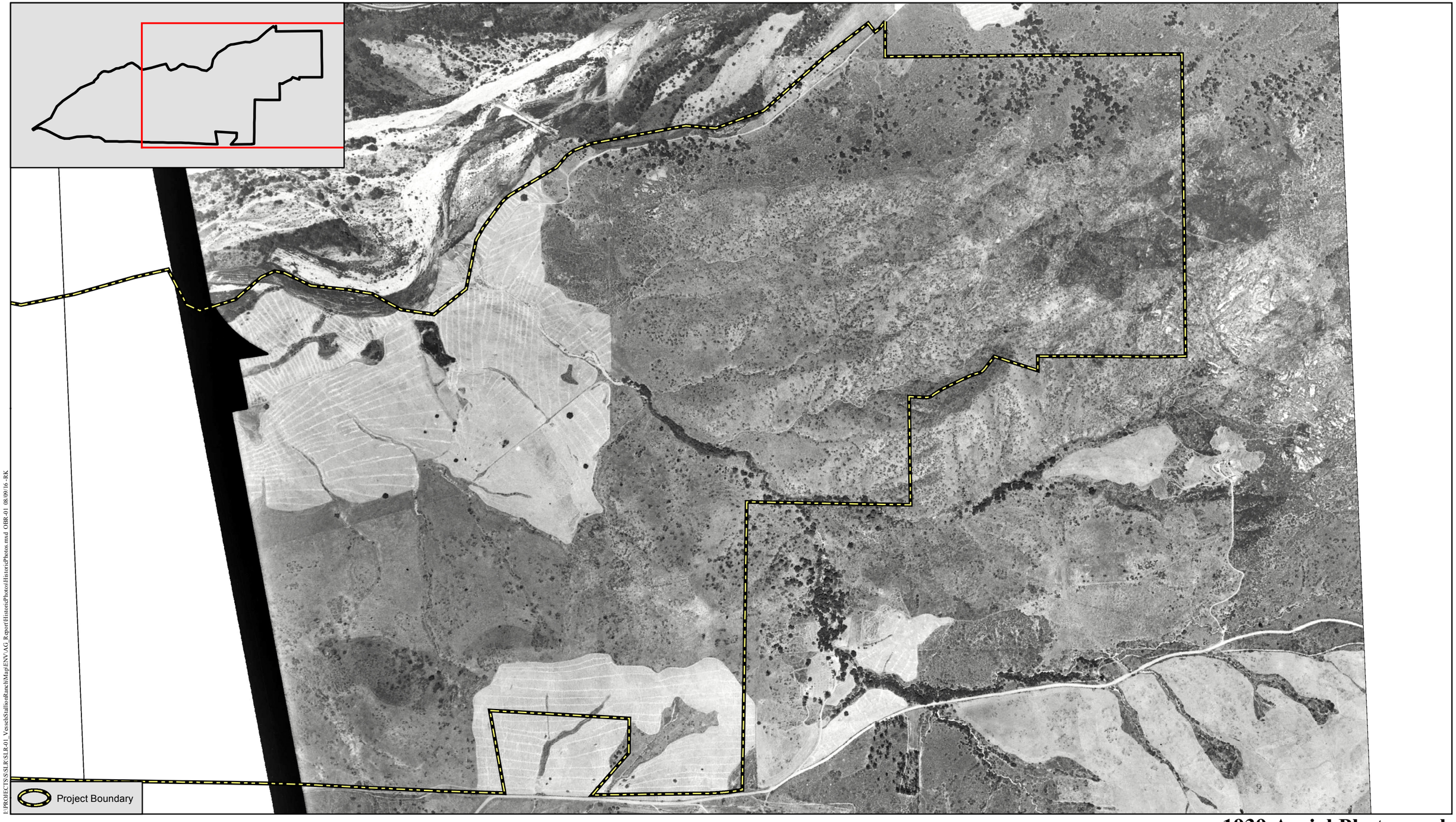

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1939 Aerial Photograph

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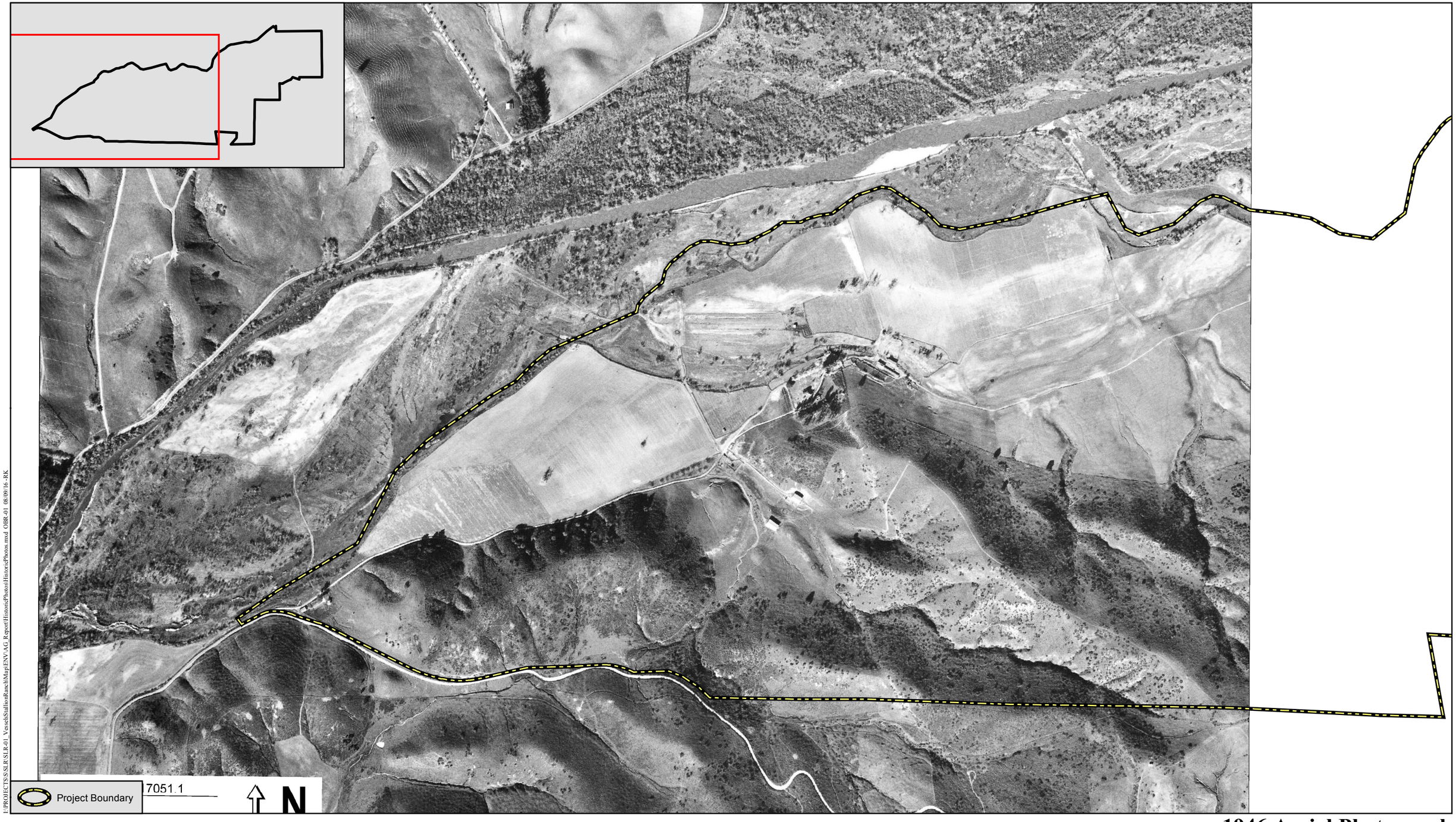

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1946 Aerial Photograph

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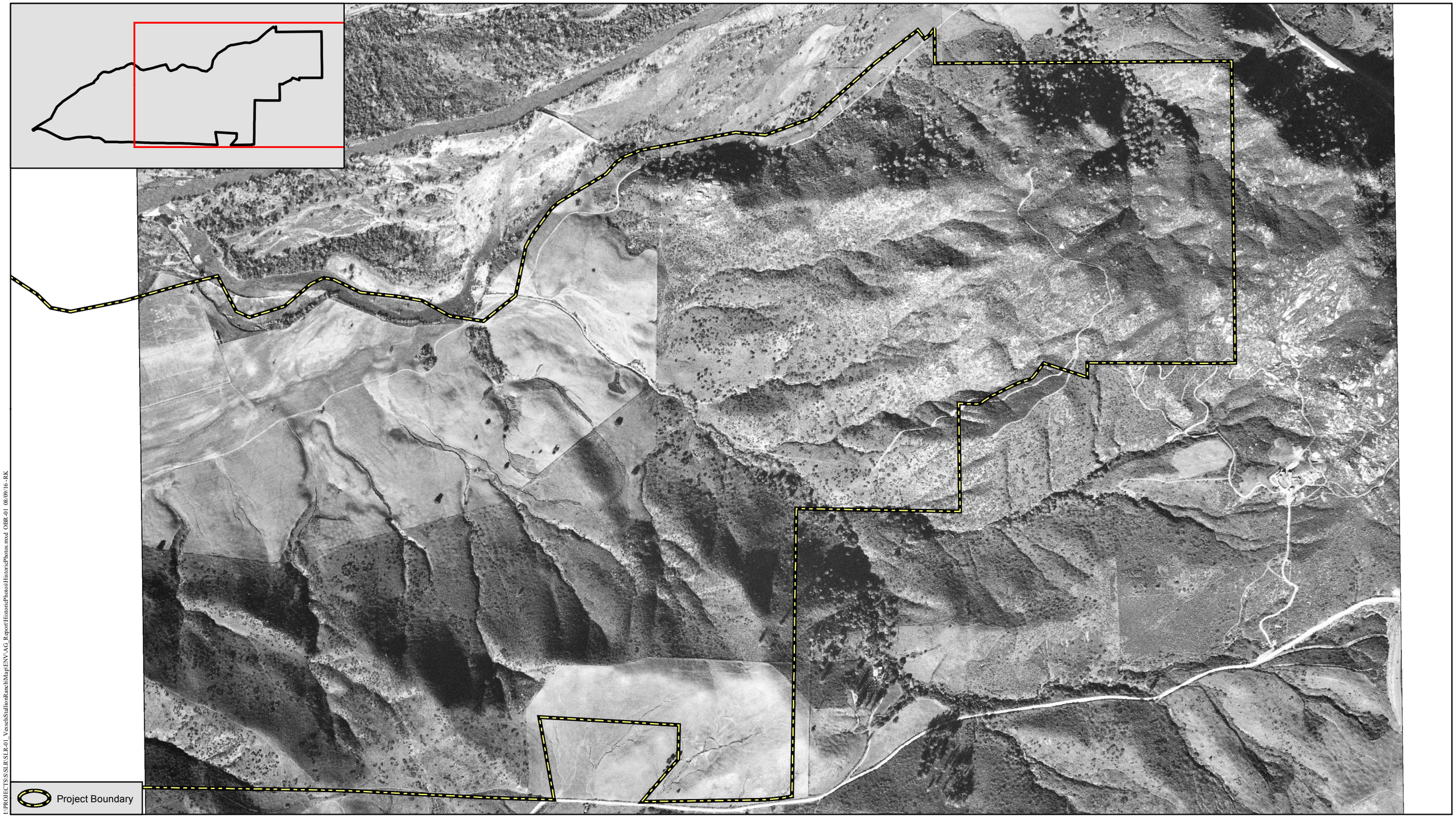

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1946 Aerial Photograph

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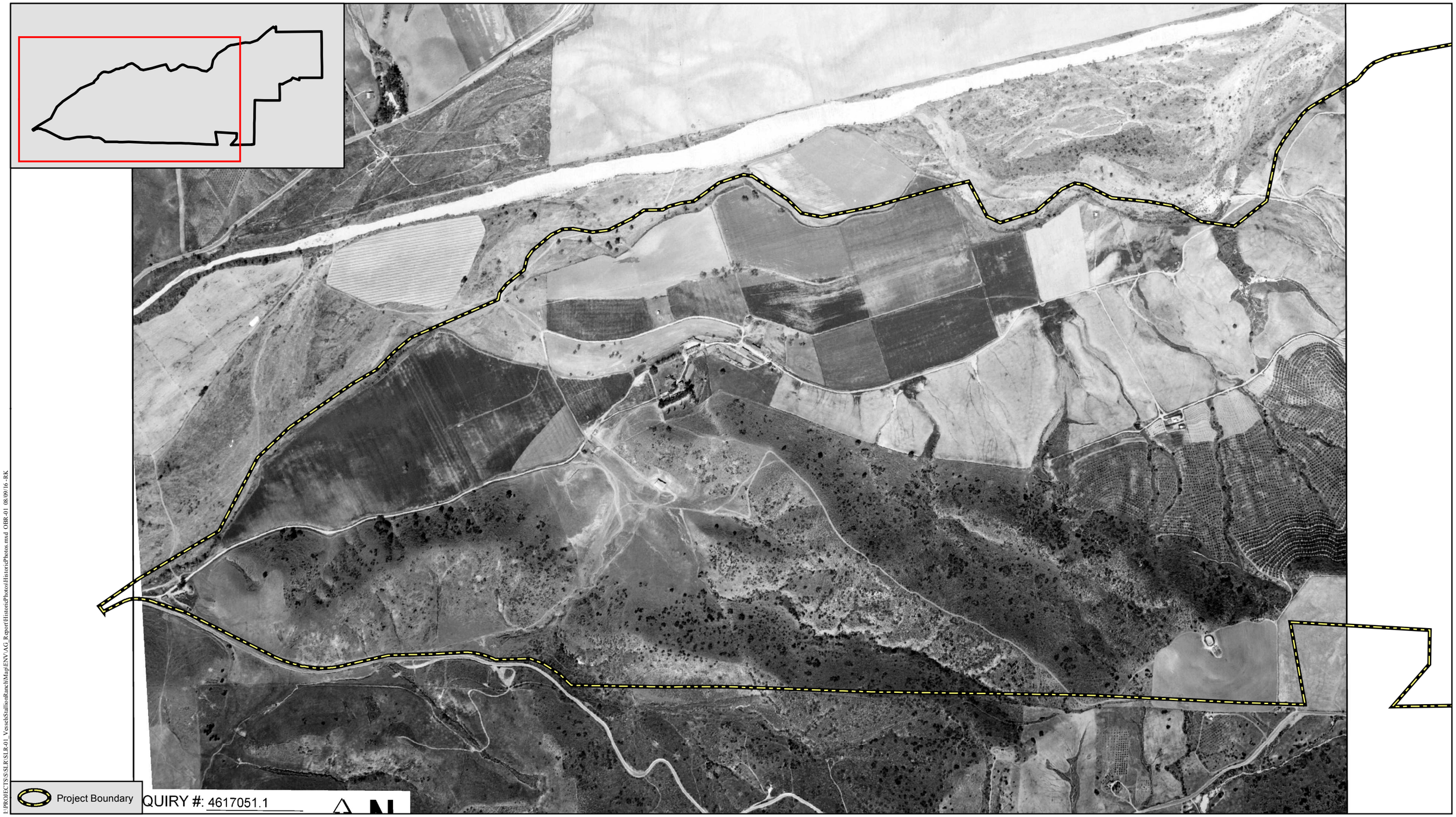

1953 Aerial Photograph

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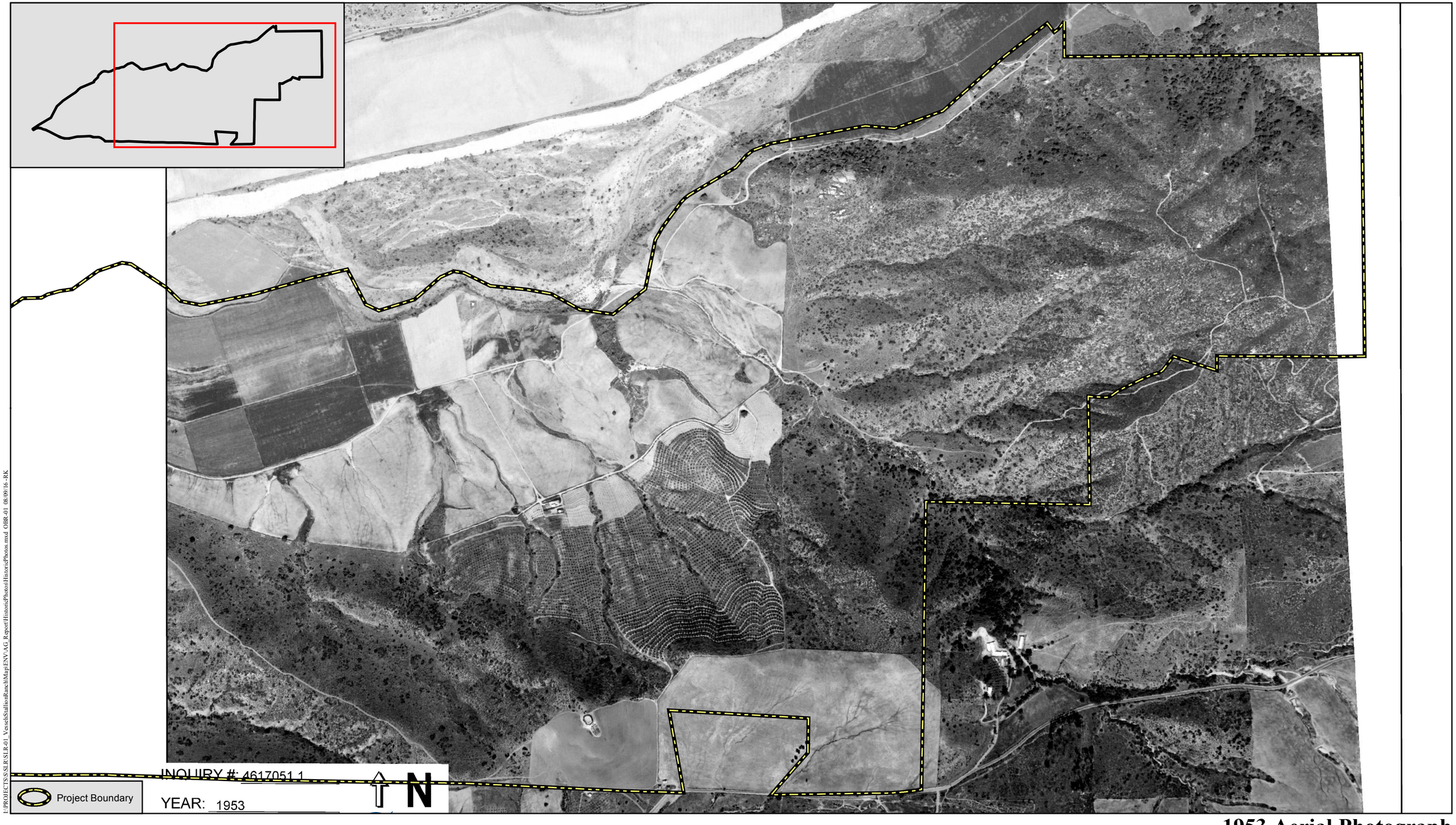

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1953 Aerial Photograph

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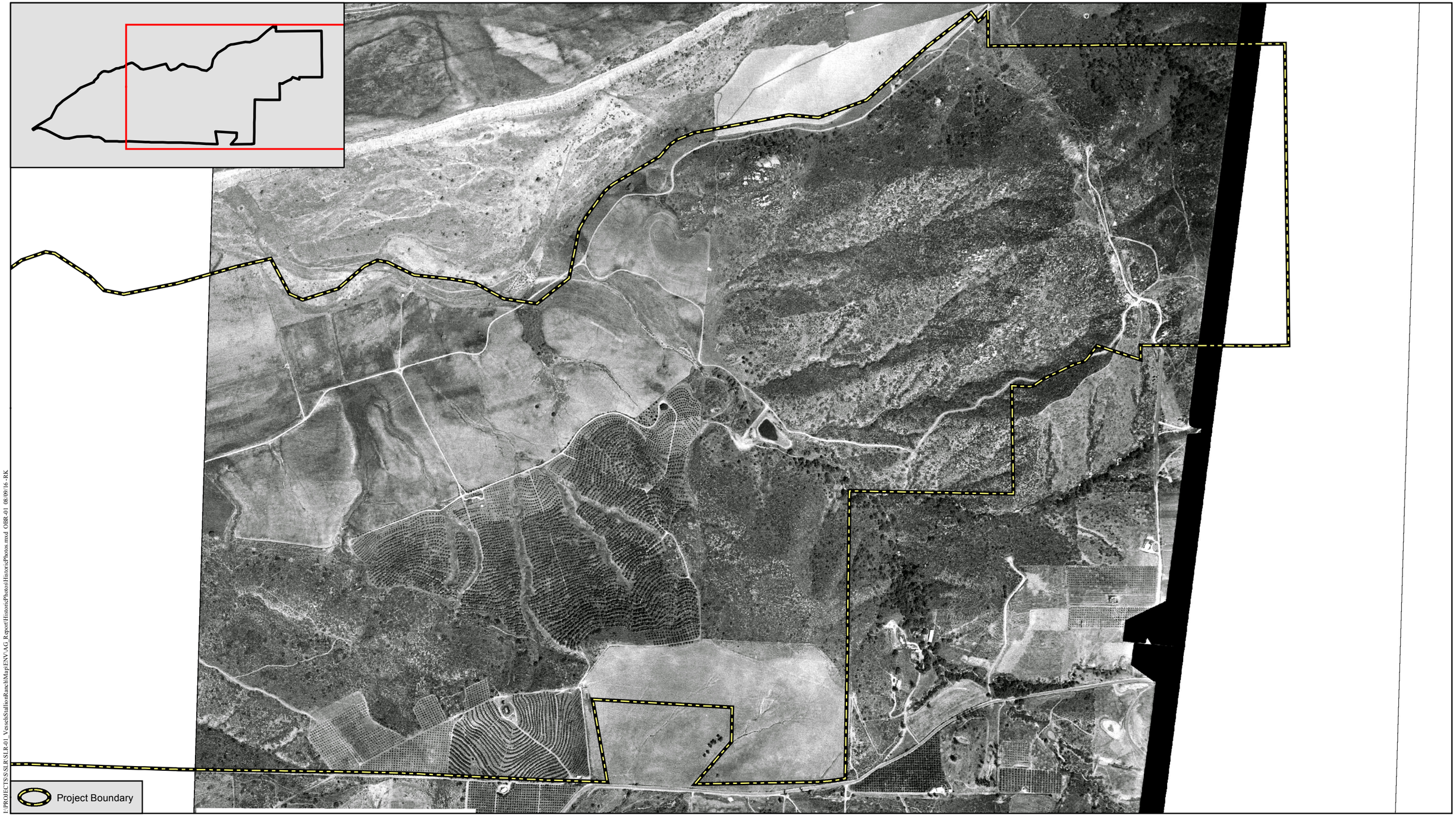

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1964 Aerial Photograph

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1964 Aerial Photograph

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1974 Aerial Photograph

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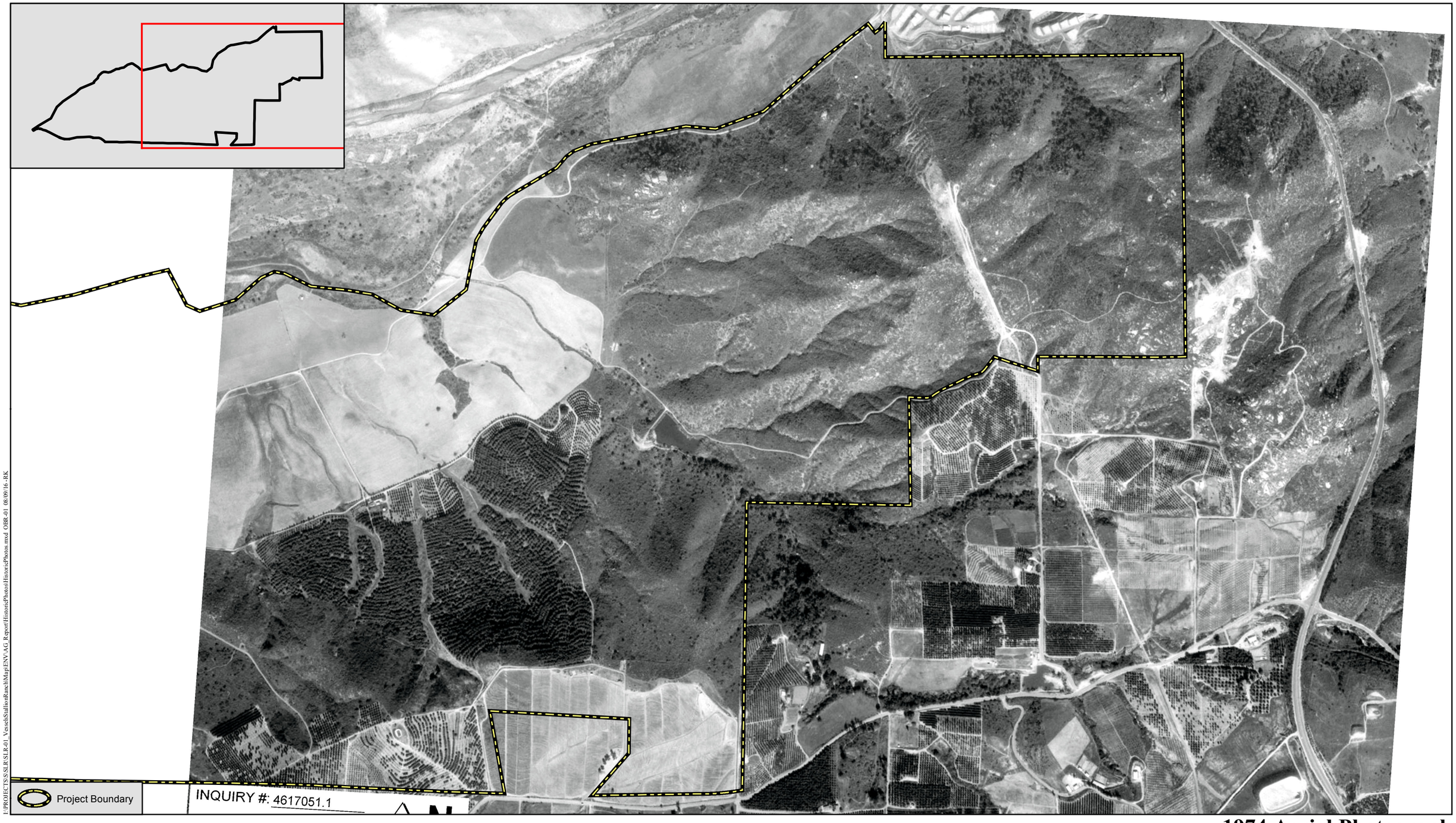

1974 Aerial Photograph

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1984 Aerial Photograph

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1984 Aerial Photograph

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1994 Aerial Photograph

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1995 Aerial Photograph

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2002 Aerial Photograph

OCEAN BREEZE RANCH

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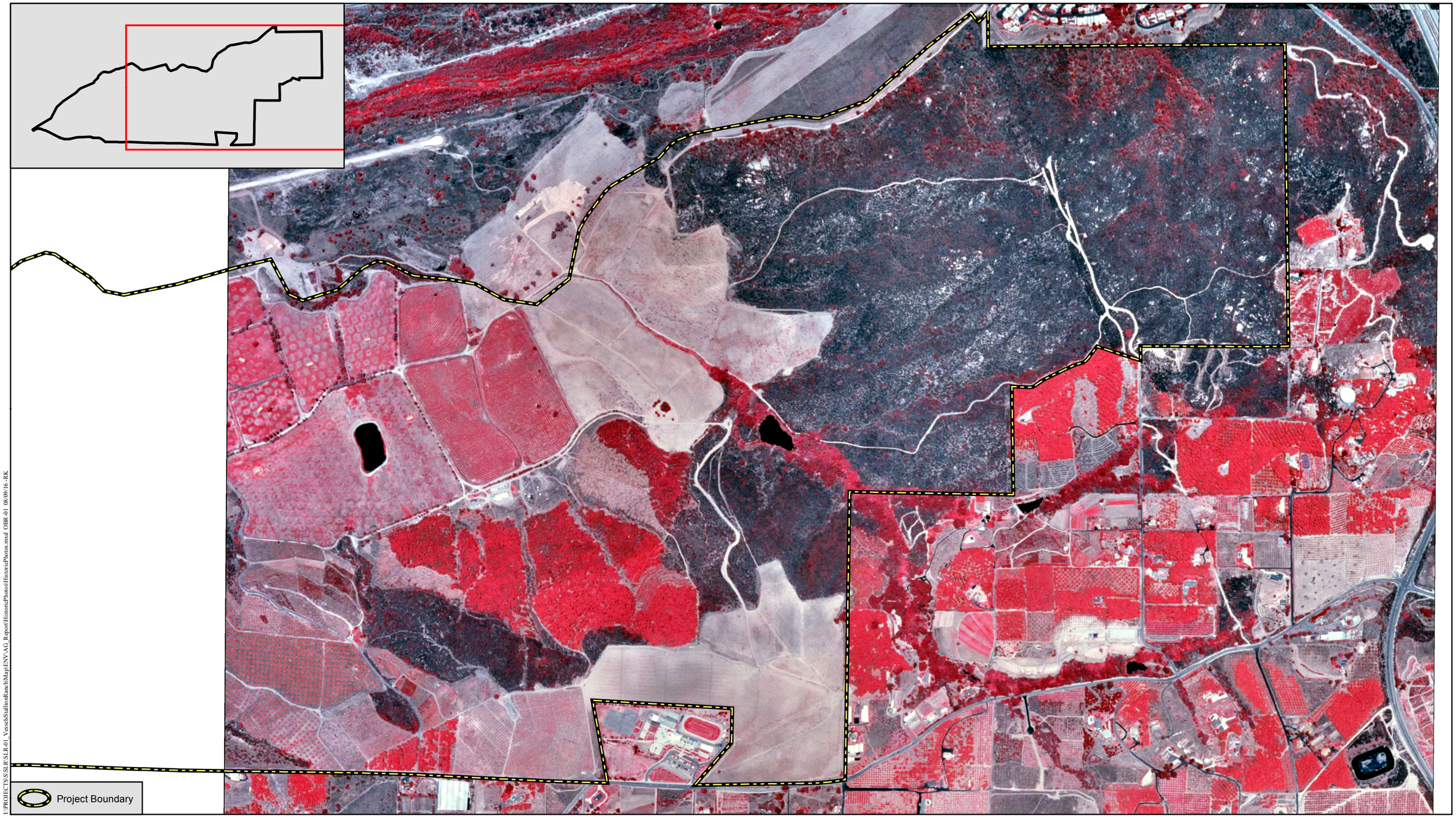

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2002 Aerial Photograph

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2012 Aerial Photograph

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HELIX Environmental Planning

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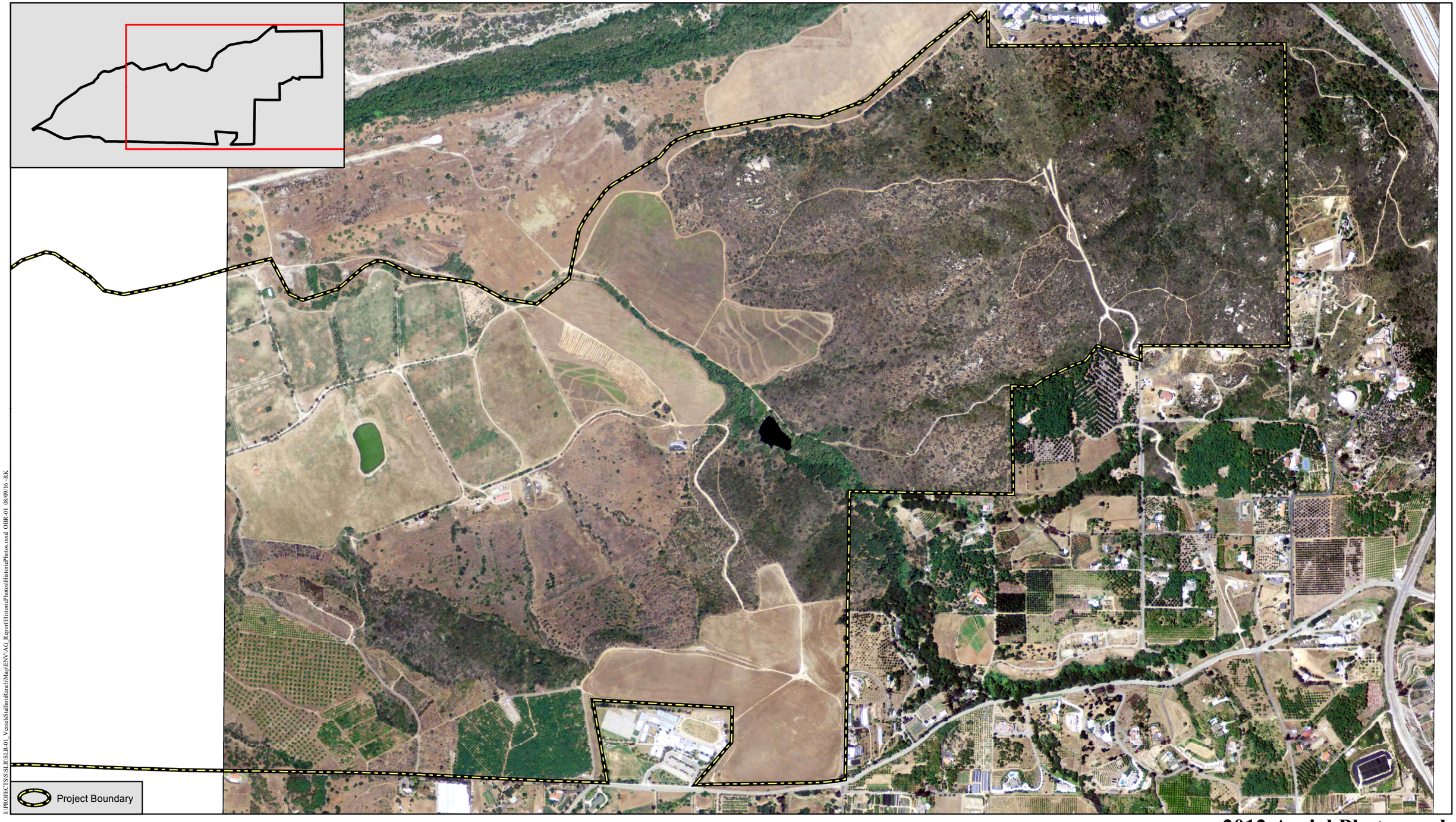

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2012 Aerial Photograph

OCEAN BREEZE RANCH

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Appendix D

Landscape Plan

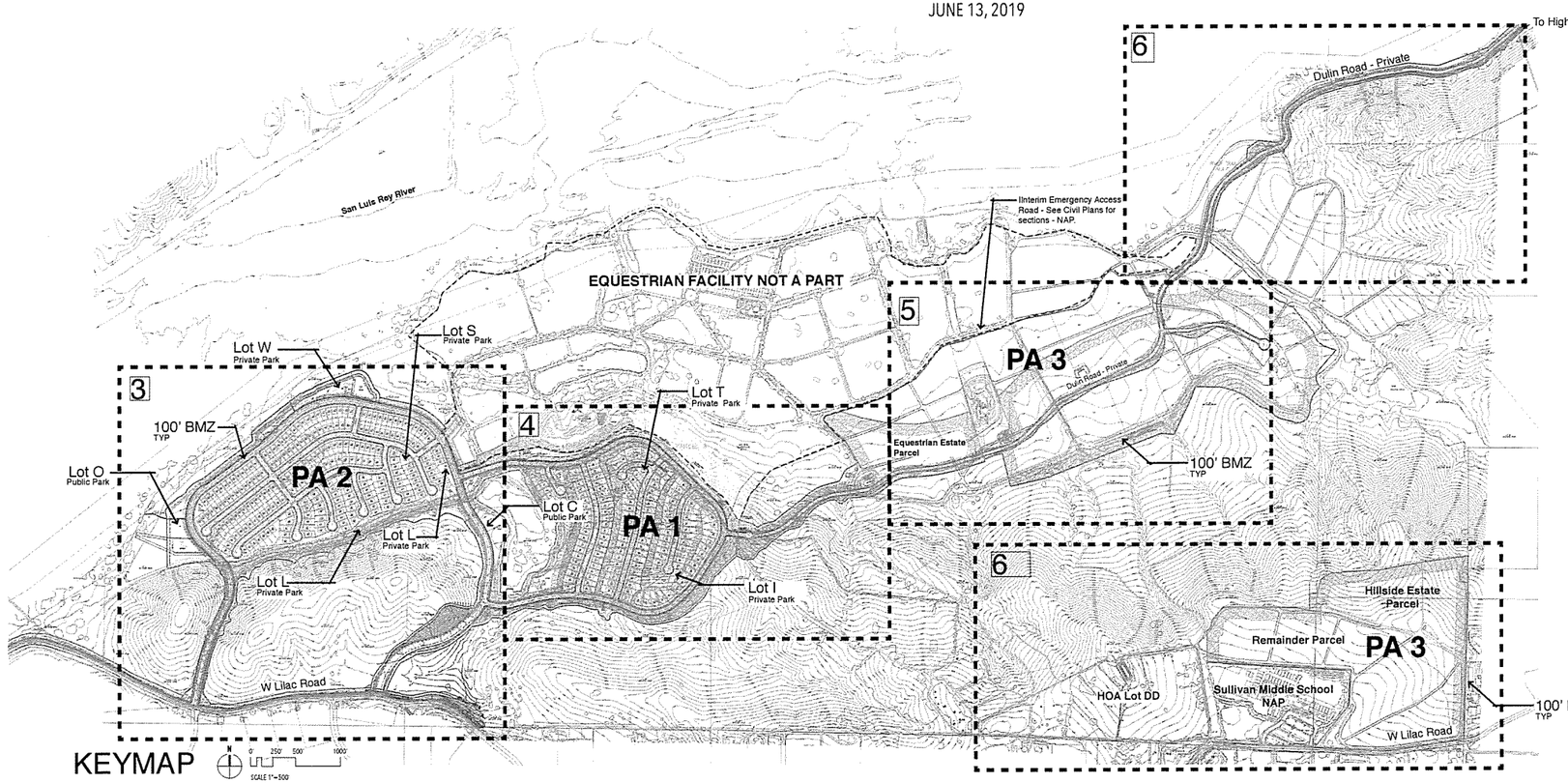
COUNTY OF SAN DIEGO TRACT 5615

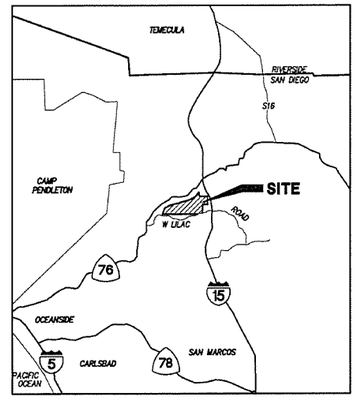
CONCEPTUAL LANDSCAPE PLAN FOR:

OCEAN BREEZE RANCH

MUP #PDS2016-MUP-16-012

JUNE 13, 2019





VICINITY MAP NTS

NOTE: MAJOR USE PERMIT

The approved plot plan, site design, conceptual landscape plans, and architectural elevations of particular design elements of the project, including, but not limited to residences, recreational sites, signage, and lighting are conceptual and have been provided for illustrative purposes only. Certain deviations to the design, scale, bulk, and coverage of the project may be required during the final design and development of the project to meet the Ocean Breeze Major Use Permit implementation standards. Proposed deviations that are in substantial conformance with, or meet the intent of, the scale, bulk, coverage, and density of the approved project may be approved at the discretion of the Director of Planning & Development Services.

A Minor Deviation to the Major Use Permit is not required for any building, structure or projection listed in 4835 or any use listed in the Accessory Use Regulations, Section 6150-6199 (or as otherwise referenced), provided the building, structure or projection or use meets the specific accessory use setbacks in the Major Use Permit and meets all other conditions and restrictions in the Major Use Permit.

The Director of Planning & Development Services is authorized, at his discretion, to allow changes to the project without requiring a Minor Deviation to the Major Use Permit provided County staff determines that no new significant impact will be created or no increase in a previously identified significant environmental effect will occur as a result of the requested change(s).

Tree Planting Summary **Total Conceptual Tree Planting - 2,371+/-**

Per the County Climate Action Plan - All new residential Lots will be required to plant 2 trees per lot. The following is an estimate of the approximate number trees to be planted within the project. This will be revised and updated during the development of the final Landscape Documentation Package.

Project phasing for landscape development to be determined.

AREA	Approximate Number of Trees
PA 1	
Residential Lots - 144	288 (2 Per lot)
Street A	75
Street B	205
Streets K-O	200
PA 1 Subtotal	768
PA 2	
Residential Lots - 237	474 (2 Per lot)
West Lilac Frontage	50 (Note - Existing trees and native landscape occur on this road)
Street A	250
Streets C-J	300
PA 2 Subtotal	1072

AREA	Approximate Number of Trees		
PA 3			
Residential Lots - 15	30 (2 Per lot)		
Dulin Road	35 (Note - Portions of road remain undisturbed, native)		
West Lilac Frontage	20 (Note - Existing trees and native landscape occur on this road)		
PA 3 Subtotal	85		
Lot L Private Park	63	Lot S Private Park	8
Lot O Public Park	28	Lot T Private Park	4
Lot W Private Park	60		
Lot C Private Park	30		
Lot I Private Park	10		
Parks Subtotal	203		
Slopes/Basins	225		
HOA Open Space	18		

LANDSCAPE SHEET INDEX

5th Submittal 07-30-2019
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TRACT 5615 TENTATIVE MAP
OCEAN BREEZE RANCH
TM PLAN

Landscape Title Sheet

MUP #PDS2016-MUP-16-012

June 13, 2019 SHEET L1 of L-10

BRUSH MANAGEMENT NOTES AND DETAILS

WITHIN THE OCEAN BREEZE RANCH, BRUSH MANAGEMENT ZONES A AND B WILL BE THOUGHTFULLY AND STRATEGICALLY IMPLEMENTED TO BLEND THE PROPOSED SITE ELEMENTS INTO THE NATURAL HILLSIDES, PROVIDE A LOGICAL AND DEFENSIBLE PERIMETER FOR FIRE, EROSION, AND OTHER NATURALLY OCCURRING HAZARDS, AND REHABILITATE DISTURBED TRANSITION ZONES FROM THE NATURAL ENVIRONMENT TO THE BUILT.

REFER TO THE LATEST FIRE PROTECTION PLAN PREPARED BY FIREWISE 2000 , SPECIFICALLY DEFENSIBLE SPACE AND VEGETATION MANAGEMENT.

ZONE A

- [] CLEAR ALL UNDESIRABLE NON-NATIVE VEGETATION (APPENDIX 'B')
- [] NO PLANTING OF UNDESIRABLE NON-NATIVE VEGETATION (APPENDIX 'B')
- [] PLANT APPROVED VEGETATION (APPENDIX 'A') IN SINGLES/CLUSTERS
- [] NO PYROPHYTES CAN BE PLANTED. EXCEPTION: NON-FIRE-RESISTIVE TREES (CONIFERS, PEPPERS, EUCALYPTUS, & ACACIA) CAN BE PLANTED AND MAINTAINED (WITH PRIOR FIRE MARSHALL APPROVAL) IF LOCATED SO THAT THERE IS 50' MIN. MATURE CANOPY CLEARANCE FROM STRUCTURES.
- [] NO DENSE PLANT MASSES ADJACENT TO STRUCTURES OR UNDER TREES
- [] TREES ALLOWED IF THEY ARE PRUNED TO MAINTAIN 10' VERTICAL SEPARATION ABOVE UNDERLYING SHRUBS/ GROUNDCOVER OR 3X THE HEIGHT OF THE UNDERSTORY OR 10' (WHICHEVER IS GREATER).
- [] THREE CLUSTERS OF 3 MAXIMUM WITH 10' MATURE CANOPY SEPARATION (LESS THAN 20% SLOPE) OR 20' (MORE THAN 20% SLOPE).
- [] MATURE CANOPY WILL BE 10' MINIMUM FROM BUILDING EAVES AND NOT OVERHANG ANY STRUCTURES.
- [] MULCH, CHIPS, OTHER SMALL CUTTINGS MAY BE EVENLY SPREAD TO A MAXIMUM DEPTH OF 4" AND WILL BE 50' MIN FROM BUILDINGS.

ZONE B

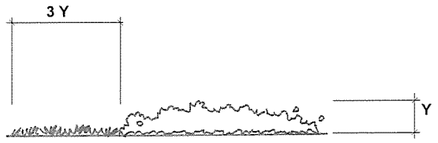
CAN BE CLEARED IN CONFORMANCE WITH ZONE A REQUIREMENTS OR MODIFIED PER THE FOLLOWING:

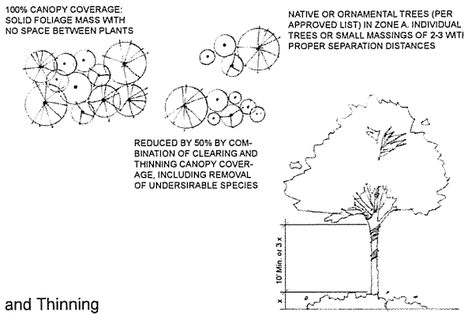
- [] FUEL VOLUME TO BE REMOVED OR THINNED BY 50%.
- [] TEMPORARY IRRIGATION USED ONLY TO ESTABLISH FIRE-RESISTIVE LANDSCAPING.
- [] ALL GRASSES AND WEEDS WILL BE MOWED OR WEED-WHIPPED (NO PULLING OR ROOT REMOVAL) TO A 4 IN. HT. BY JUNE 1ST OF EACH YEAR OR WHEN FUEL IS CURED (WHICHEVER IS FIRST).
- [] VEGETATIVE DEBRIS/TRIMMINGS WILL BE REMOVED FROM SITE OR CONVERTED TO MULCH (EVENLY SPACED WITH 4" MAX. DEPTH).
- [] VEGETATION WITHIN 30' OF NEW ROADS WILL BE MODIFIED/REDUCED TO 50% OF FULL COVERAGE AREA.
- [] NONE OF THE FOLLOWING WILL BE PERMITTED TO GROW IN THIS ZONE
  - ARTEMISIA CALIFORNICA, CALIFORNIA SAGEBRUSH
  - ERIOGONUM FASCICULATUM, FLAT-TOPPED BUCKWHEAT
  - SALVIA MELLIFERA, BLACK SAGE

MAINTENANCE

YEAR-ROUND MAINTENANCE WILL INCLUDE THE FOLLOWING:

- [] PRUNE AND THIN TREES AROUND STRUCTURES TO A PROPER CANOPY SEPARATION.
- [] BRANCHES OVERHANGING ROOFS WILL BE REMOVED.
- [] TRASH AND COMBUSTIBLE DEBRIS WILL BE CLEARED FROM GUTTERS, ROOFS, AND AROUND STRUCTURES.
- [] IRRIGATION SYSTEMS WILL BE MAINTAINED IN FULL WORKING CONDITION.





Pruning and Thinning

LANDSCAPE NOTES

ALL NEW LANDSCAPING SHALL CONFORM TO THE FOLLOWING DOCUMENTS:

- COUNTY OF SAN DIEGO WATER EFFICIENT LANDSCAPE DESIGN MANUAL
- APPROVED FINAL PROJECT FIRE PROTECTION PLAN FOR FUEL MODIFICATION BY FIREWISE 2000
- COUNTY OF SAN DIEGO WATER CONSERVATION IN LANDSCAPE ORDINANCE
- BONSALL DESIGN GUIDELINES

1. ALL GRADED, DISTURBED, OR ERODED AREAS THAT WILL NOT BE PERMANENTLY PAVED OR COVERED BY STRUCTURES WILL BE PERMANENTLY RE-VEGETATED AND IRRIGATED PER THE PERMANENT RE-VEGETATION AND IRRIGATION REQUIREMENTS AS PER COUNTY OF SAN DIEGO LANDSCAPE REGULATION.
2. FINAL LANDSCAPE PLANS SHALL ACCURATELY SHOW PLACEMENT OF TREES, SHRUBS AND GROUNDCOVERS AND IRRIGATION SYSTEM DESIGN.
3. FINAL LANDSCAPE PLANS SHALL SHOW SIGHT LINE DISTANCE, ALL LANDSCAPE SHALL BE MAINTAINED WITH NO STRUCTURES HIGHER THAN 30" OR PLANT MATERIAL HIGHER THAN 24" AT MATURITY WITHIN THE CLEAR LINE OF SIGHT AREA.
4. BRUSH MANAGEMENT ZONES ARE SHOWN ON A SEPARATE EXHIBIT ENTITLED "FIRE PROTECTION PLAN".
5. ALL LANDSCAPE AND IRRIGATION SHALL CONFORM TO THE COUNTY OF SAN DIEGO LANDSCAPE REGULATION AND ALL OTHER APPLICABLE REGIONAL AND STATE STANDARDS FOR LANDSCAPE INSTALLATION AND MAINTENANCE.
6. AN ENCROACHMENT PERMIT, AND/OR AN ENCROACHMENT MAINTENANCE AND REMOVAL AGREEMENT SHALL BE REQUIRED FOR ALL LANDSCAPE IMPROVEMENTS WITHIN THE PUBLIC RIGHT'S OF WAY.
7. DG PATHWAYS WITH LONGITUDINAL SLOPES OVER 5% SHALL NOT BE ALLOWED WITHOUT DRAINAGE/RUNOOF CONSIDERATION. MAXIMUM CROSS SLOPE SHALL BE 5%.
8. STREET TREES: STREET TREES SHALL BE PROVIDED WITHIN THE PUBLIC RIGHT-OF-WAY AREA, BETWEEN THE CURB AND PROPERTY LINE, AT NO LESS THAN TWENTY FIVE FEET. ALL STREET TREES MUST BE A MINIMUM SIZE OF 24-INCH BOX. ALL PLANT MATERIAL SHALL COMPLY WITH COUNTY OF SAN DIEGO, UTILITY COMPANY RESTRICTIONS AND SAN DIEGO COUNTY FIRE AUTHORITY SPACING AND SETBACK REQUIREMENTS.
9. MINIMUM STREET TREE SEPARATION DISTANCE:

IMPROVEMENT:	STREET TREE:
TRAFFIC SIGNALS (STOP SIGN)	20 FEET
UNDERGROUND UTILITY LINES	5 FEET
ABOVE GROUND UTILITY STRUCTURES	10 FEET
DRIVEWAY (ENTRIES)	10 FEET
INTERSECTIONS (INTERSECTING CURB LINES OF TWO STREETS)	25 FEET
SEWER MAINS AND SEWER LATERALS	10 FEET

10. IRRIGATION: AN IRRIGATION SYSTEM SHALL BE PROVIDED AS REQUIRED FOR PROPER IRRIGATION, DEVELOPMENT AND MAINTENANCE OF VEGETATION. THE DESIGN OF THE SYSTEM SHALL PROVIDE ADEQUATE SUPPORT FOR THE VEGETATION SELECTED. PLANTS SHALL BE GROUPED IN HYDROZONES, WHICH ARE GROUPINGS OF PLANTS WITH SIMILAR WATERING NEEDS. IRRIGATION SHALL BE CALIBRATED TO THE WATER NEEDS OF EACH HYDROZONE TO AVOID OVER AND UNDER WATERING. LOW-WATER NATIVE PLANTS AND ORNAMENTALS WILL BE USED WHENEVER POSSIBLE. SUPPLEMENTARY IRRIGATION MAY STILL BE NEEDED TO MAINTAIN THESE PLANTS. THE TYPE OF IRRIGATION SYSTEM USED SHALL BE BASED ON PLANT TYPE AND WATER USE. RE-VEGETATED AREAS MAY USE TEMPORARY IRRIGATION FOR ESTABLISHMENT IF NEEDED.
11. MAINTENANCE: LANDSCAPE WITHIN THE ROW REQUIRES AN "ENCROACHMENT MAINTENANCE AND REMOVAL AGREEMENT" WITH THE COUNTY. THE LANDSCAPE AREAS SHALL BE MAINTAINED FREE OF DEBRIS AND LITTER CONDITION AND ALL PLANT MATERIAL SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION. DISEASED OR DEAD PLANT MATERIAL SHALL BE SATISFACTORILY TREATED OR REPLACED PER THE CONDITIONS OF THE PERMIT. ALL SLOPES AND DRAINAGE EASEMENTS SHALL BE PRIVATELY MAINTAINED. MAINTENANCE RESPONSIBILITIES ARE DIVIDED INTO THE FOLLOWING:

RESPONSIBLE ENTITY:	AREA(S) RESPONSIBLE FOR:
INDIVIDUAL PROPERTY OWNER	RESIDENTIAL PROPERTIES, BRUSH MANAGEMENT ZONE A
HOMEOWNERS ASSOCIATION	HOA COMMON AREAS, BRUSH MANAGEMENT ZONES B, PRIVATE STREETS, PRIVATE PARKS, ENTRY SIGNAGE LANDSCAPE.
PUBLIC AGENCY MAINTENANCE	PUBLIC STREETS, PUBLIC PARKS

12. PROFESSIONAL LANDSCAPE MAINTENANCE COMPANIES SHALL BE ENCOURAGED TO DEVELOP A COMPOST PROGRAM AND THE PROJECT SHALL ENCOURAGE HOMEOWNERS TO USE THE RECYCLING GUIDES PROVIDED BY THE COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS SHOWN ON THEIR "RECYCLING GUIDES" WEB-PAGE.
13. VOLATILE AND INVASIVE SPECIES SHALL NOT BE PLANTED WITHIN THE BRUSH MANAGEMENT ZONE AND ADJACENT TO OPEN SPACE ELEMENTS/LOTS.
14. NO STRUCTURES OR LANDSCAPING OF ANY KIND, INCLUDING ENHANCED PAVING, SHALL BE INSTALLED IN OR OVER ANY EASEMENT PRIOR TO THE APPLICANT OBTAINING AN ENCROACHMENT REMOVAL AGREEMENT.
15. REFER TO THE BIOLOGICAL OPEN SPACE MAPS AND DOCUMENTS FOR PLANT RESTRICTIONS AND SETBACKS IN THOSE ZONES.
16. FINAL LANDSCAPE PLANS FOR ALL SLOPES SHALL PROVIDE ADEQUATE PLANTING ON ALL SLOPES TO MITIGATE THE VISUAL IMPACT TO SURROUNDING PROPERTIES BEYOND THE MINIMUM REQUIREMENTS OF THE COUNTY GRADING ORDINANCE FOR SLOPE PLANTING.
17. ALL PRIVATE AND PUBLIC PARKS SHALL INCLUDE SPACE FOR RECYCLING CONTAINERS.
18. EXISITNG OVERHEAD LINES WITHIN THE RESIDENTIAL MUP WILL BE REMOVED AND SERVICE WILL BE PROVIDED VIA NEW UNDERGROUND SYSTEMS.

EXISTING TREES TO REMAIN

1. EXISTING TREES TO REMAIN NOTED ON THESE PLANS ARE CONCEPTUAL ONLY. FINAL DEVELOPMENT PLANS WILL INCLUDE IDENTIFICATION, DETAILS OF EXISITNG VEGETATION TO REMAIN AND METHODS OF PROTECTION.
2. UPON DEVELOPMENT OF THE FINAL ENGINEERING PLANS AND LANDSCAPE DOCUMENTATION PLANS, EXISTING TREES TO REMAIN SHALL BE NOTED ON THE PLANS BY A TREE SURVEY.
3. FINAL DEVELOPMENT PLANS SHALL INCLUDE A TREE PROTECTION PLAN / AND OR REPORT DEVELOPED BY A ISA-CERTIFIED ARBORIST OR AN ASCA-REGISTERED ARBORIST.
4. THE REPORT SHALL INCLUDE A DESCRIPTION OF EACH TREE TO REMAIN INDICATING ITS GENUS SPECIES, DIAMETER AT BREAST HEIGHT (DBH), CONDITION RATINGS, AND PROTECTION AND MAINTENANCE RECOMMENDATIONS FOR ALL PROTECTED TREES TO REMAIN.
5. THE REPORT SHALL NOTE PROTECTIVE FENCING TYPE AT THE TREE PROTECTION ZONE (TPZ) FOR EACH TREE TO REMAIN – INCLUDING PROTECTED TREES ON ADJACENT LOTS WITH CANOPIES EXTENDING INTO OR NEAR THE WORK AREAS.
6. THE FINAL ARBORIST REPORT IS TO BECOME PART OF THE FINAL LANDSCAPE DOCUMENTATION PLAN SET.

WATER DELIVERY SYSTEM AND IRRIGATION NOTES

THE IRRIGATION SYSTEM UTILIZED FOR THIS PROJECT WILL CONNECT INTO THE EXISTING POTABLE WATER MAINLINE. THE SYSTEM WILL CONSIST OF AN AUTOMATIC CONTROLLER, PVC PIPE, SPRAY/ROTARY/ROTOR SYSTEMS AND/OR DRIP IRRIGATION WITH LOW GALLONAGE IRRIGATION HEADS. POTABLE WATER WILL BE EFFICIENTLY USED TO WATER THE LANDSCAPE. WATER CONSERVING PRINCIPLES WILL BE APPLIED IN THE DESIGN AS FOLLOWS:

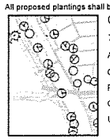
1. ALL IRRIGATION SYSTEMS SHALL BE COMPLIANT WITH THE WATER EFFICIENT LANDSCAPE DESIGN MANUAL AND THE COUNTY OF SAN DIEGO LANDSCAPE REGULATIONS AND STANDARDS.
2. THE PROJECT SHALL PROVIDE FOR A DUAL DISTRIBUTION SYSTEM FOR ALL LANDSCAPED AREAS IN ANTICIPATION OF A FUTURE RECLAIMED WATER SYSTEM.
3. AUTOMATIC IRRIGATION CONTROLLERS WITH THE CAPABILITY OF BEING SET FOR MULTIPLE RUN TIMES IN ONE DAY FOR EACH STATION, THEREBY REDUCING RUN-OFF BY SUPPLYING ONLY THE AMOUNT OF WATER THAT THE SOIL CAN ABSORB AT ONE TIME. IN ADDITION, THE IRRIGATION MANAGER WILL HAVE THE ABILITY TO ADJUST RUN TIMES BASED ON C.I.M.I.S. DATA.
4. THE USE OF A RAIN SHUT-OFF SWITCH TO OVERRIDE THE CURRENT CONTROLLER SCHEDULE IN THE EVENT THAT WEATHER TEMPORARILY REDUCES THE WATER REQUIREMENTS.
5. IRRIGATION HEAD LAYOUT WILL BE APPROXIMATELY "HEAD TO HEAD" MEANING THAT EACH SPRINKLER'S COVERAGE RADIUS REACHES TO THE NEXT IRRIGATION HEAD IN THE SYSTEM. THIS WILL PROVIDE A BETTER DISTRIBUTION UNIFORMITY (DU) TO COVER ALL LANDSCAPE AREAS WITH THE SAME AMOUNT OF WATER, THUS MINIMIZING OVER WATER IN SOME AREAS OR UNDER WATERING IN OTHERS.
6. MATCHED PRECIPITATION RATE NOZZLES (10 FOOT, 12 FOOT, ETC.) ON THE SAME REMOTE CONTROL VALVE WHILE STILL MAINTAINING EQUAL WATER DISTRIBUTION. THIS ALSO ADDS TO AN INCREASED DISTRIBUTION UNIFORMITY (DU).
7. ANTI-DRAIN VALVES WILL BE USED IN SPRINKLER BODIES WHERE LOW HEAD DRAINAGE MAY OCCUR. BY PREVENTING THIS, THINGS SUCH AS POOLING AND EROSION WILL BE MINIMIZED.
8. LOW PRECIPITATION RATE NOZZLES WILL BE USED IN THE DESIGN TO REDUCE WATER FLOW (IN COMPARISON TO CONVENTIONAL OR STANDARD GALLONAGE NOZZLES WHICH EMIT CONSIDERABLY MORE WATER IN THE SAME AMOUNT OF TIME), DECREASING THE PROBABILITY OF WATER WASTE BY RUN-OFF.
9. IRRIGATION STATIONS (AREA THAT ONE REMOTE CONTROL VALVE WILL SERVE) WILL BE SEPARATED TO CONSERVE WATER AS FOLLOWS:
   a. SLOPE AREAS WILL BE SEPARATED FROM FLAT AREAS.
   b. TOP AND BOTTOM OF SLOPES WILL BE ON SEPARATE SYSTEMS.
   c. DIFFERING MICRO-CLIMATE AREAS WILL BE ON DIFFERENT STATIONS.
   d. ALL TREES SHALL BE IRRIGATED BY SEPARATE VALVES FROM ALL OTHER SURROUNDING VEGETATION WHERE FEASIBLE. SEE SECTION 86.709 (H) OF THE WATER CONSERVATION IN LANDSCAPING ORDINANCE.

ALL AREAS LISTED HAVE DIFFERENT WATERING REQUIREMENTS AND RUN TIMES WILL BE INDIVIDUALLY DETERMINED BASED ON CURRENT C.I.M.I.S. DATA, SOIL CHARACTERISTICS, AND SITE GRADING BY THE OWNER OR IRRIGATION MANAGER.

LANDSCAPE CONCEPT LEGEND

The plant material listed below is not intended to be a complete list, but rather offer a representation of the plants suitable for the project. Final plant selection and container sizes will be submitted during the final Landscape Documentation Package process. No non-native invasive plant species shall be used, per Appendix H and J in the County Water Efficient Landscape Manual and California Exotic Pest Plant Council List A-1, and the California Invasive Plant Council (Cal-IPC).

All proposed plantings shall be compliant with Section 4.7 of the projects' approved Fire Protection Plan.



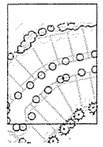
Collector Loop Road Landscape

Trees **- 75% 24" Box, 25% 15 gallon**

Arbutus menziesii	Madrone
Olea europea - "Fruitless"	Fruitless Olive
Platanus racemosa	California sycamore
Quercus agrifolia	Coast Live Oak
Umbellularia californica	Bay Laurel

Shrubs and Ground Covers **– 40% 1 Gallon, 30% 5 Gallon, 30% Flats**

Aloe species*	Aloe
Arctostphylus species*	Manzanita - Approved Varieties Only
Baccharis species*	Baccharis
Callistemon "little john"	NCN
Ceanothus species*	California Lilac - Approved Varieties Only
Cistus purpurpureus	Orchid Rockrose
Muhlenbergia rigens	Deer Grass
Nolina species*	Nolina
Opuntia species*	Cactus
Rosmarinus Officinalis**	Rosemary
Salvia cultivars*	Sage - Approved Varieties Only



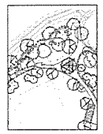
Neighborhood Streets

Trees **- 100% 24" Box**

Agonis flexuosa	Peppermint Willow
Arbutus unedo 'marina'	Marina Strawberry Tree
Geijera parviflora	Australian Willow
Pistacia chinensis	Chinese Pistache
Pittosporum undulatum	Victorian Box
Quercus ilex	Holly Oak
Quercus virginiana	Southern Live Oak
Rhus lancea	African Sumac

Shrubs and Ground Covers **– 100% Flats**

Aloe species*	Aloe
Arctostphylus species*	Manzanita
Baccharis species*	Baccharis
Ceanothus g. horizontalis	Carmel Creeper - Approved Varieties Only
Dymondia margaretae	Silver Carpet
Festuca glauca 'Elijah Blue'	Elijah Blue Fescue
Sedum species and hybrids	Stonecrop



Park Landscape

Trees **- 10% 36" Box, 70% 24" Box, 20% 15 Gallon**

Alnus rhombifolia	White Alder
Cercis occidentalis	Western Redbud
Chitalpa tashkentensis	Chitalpa
Cinnamomum camphora	Camphor Tree
Fraxinum species	Evergreen Ash
Lagerstroemia indica	Crape Myrtle
Platanus racemosa	California Sycamore
Quercus species	Oak
Umbellularia californica	Bay Laurel

Shrubs and Ground Covers **– 40% 1 Gallon, 30% 5 Gallon, 30% Flats**

Aloe species*	Aloe
Arctostphylus species*	Manzanita
Baccharis species*	Baccharis
Callistemon "little john"	NCN
Cistus purpurpureus	Orchid Rockrose
Muhlenbergia rigens	Deer Grass
Nolina species*	Nolina
Opuntia species*	Cactus
Rosmarinus species**	Rosemary Approved Varieties Only
Salvia cultivars*	Sage - Approved Varieties Only

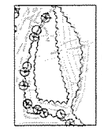
Naturalized Transition Landscape/Exterior Slopes

Trees and Shrubs – Trees 100% 15 gallon, Shrubs 100% 1 Gallon

Arbutus unedo 'Marina'	Strawberry Tree
Heteromeles arbutifolia	Toyon
Lophostemon confertus	Brisbane Box
Platanus racemosa	California Sycamore
Quercus agrifolia	Coast Live Oak
Quercus engelmannii	Mesa Oak
Rhus ovata	Sugar Bush
Rhus integrifolia	Lemonade Berry

Hydroseed Mix for Slopes (Final mix to be determined by location and soil)

Atriplex canescans	Saltbush
Baccharis pilularis	Coyote Bush
Eriophyllum Confertiflorum	Golden Yarrow
Encelia californica	Bush Sunflower
Eschscholzia californicus	California Poppy
Lupinus Succukentus	Arroyo Lupine
Mimulus sp.	Monkeyflower
Nassella pulchra	Purple Needlegrass
Plantago erecta	California Plantain
Vulpia microstachys	Three Week Fescue



Storm Water Basins (SWB) - Native Species

Trees **- 20% 24" Box, 80% 15 gallon**

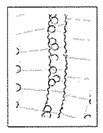
Aesculus californica	California Buckeye
Platanus racemosa	California Sycamore
Salix species*	Willow
Sambucus mexicana	Blue Elderberry
Umbellularia californica	California Bay

Shrubs/ Ground Covers - 20% 1 Gallon, 80% Flats

Baccharis species*	Baccharis
Rhamnus californica	Coffeeberry
Ribes species	Currant/Gooseberry
Rosa californica	California Rose
Salvia cultivars*	Sage - Approved Varieties Only

Grasses – 100% Flats or Seed

Carex spp*	Sedge
Elymus spp*	NCN
Festuca californica	California Fescue
Festuca mairei	Atlas Fescue
Iris douglasiana	Douglas Iris
Juncus patens	Common Rush
Juncus textilis	Basket Rush
Muhlenbergia rigens	Deer Grass



Interior Slopes

Trees **- 50% 24" Box, 50% 15 gallon**

Aesculus californica	California Buckeye
Arbutus unedo 'Marina'	Strawberry Tree
Cercis occidentalis	Western redbud
Sambucus mexicana	Blue Elderberry
Arctostaphylos spp*	Manzanita
Quercus engelmanii	Engelmann Oak

Shrubs/ Ground Covers - 20% 1 Gallon, 80% Flats

Baccharis species*	Baccharis
Ceanothus species*	California Lilac
Dendromecon Harfordii	Bush Poppy
Feijoa sellowiana	Pineapple Guava
Garrya elliptica	Silk Tassel Bush
Heteromeles arbutifolia	Toyon
Rosmarinus species**	Rosemary - Approved Varieties Only
Rhamnus californica	Coffeeberry
Ribes species*	Currant/Gooseberry
Rosa californica	California Rose
Rhus integrifolia	Lemonade Berry
Salvia cultivars*	Sage - Approved Varieties Only

* There are many native/drought tolerant plants with multiple species available that will do well here. Rather than list multiple plants, the variety should be appropriate for use in the region and the specific micro-climate and landscape use. Selections should based on fuel mod criteria, locally available, and resistant to pest and disease prevalent in the area.

** These Plant species are acceptable on a limited basis (maximum 30% of the area) in wet Fuel Modification Zones

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TRACT 5615 TENTATIVE MAP
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TM PLAN

Notes & Legends

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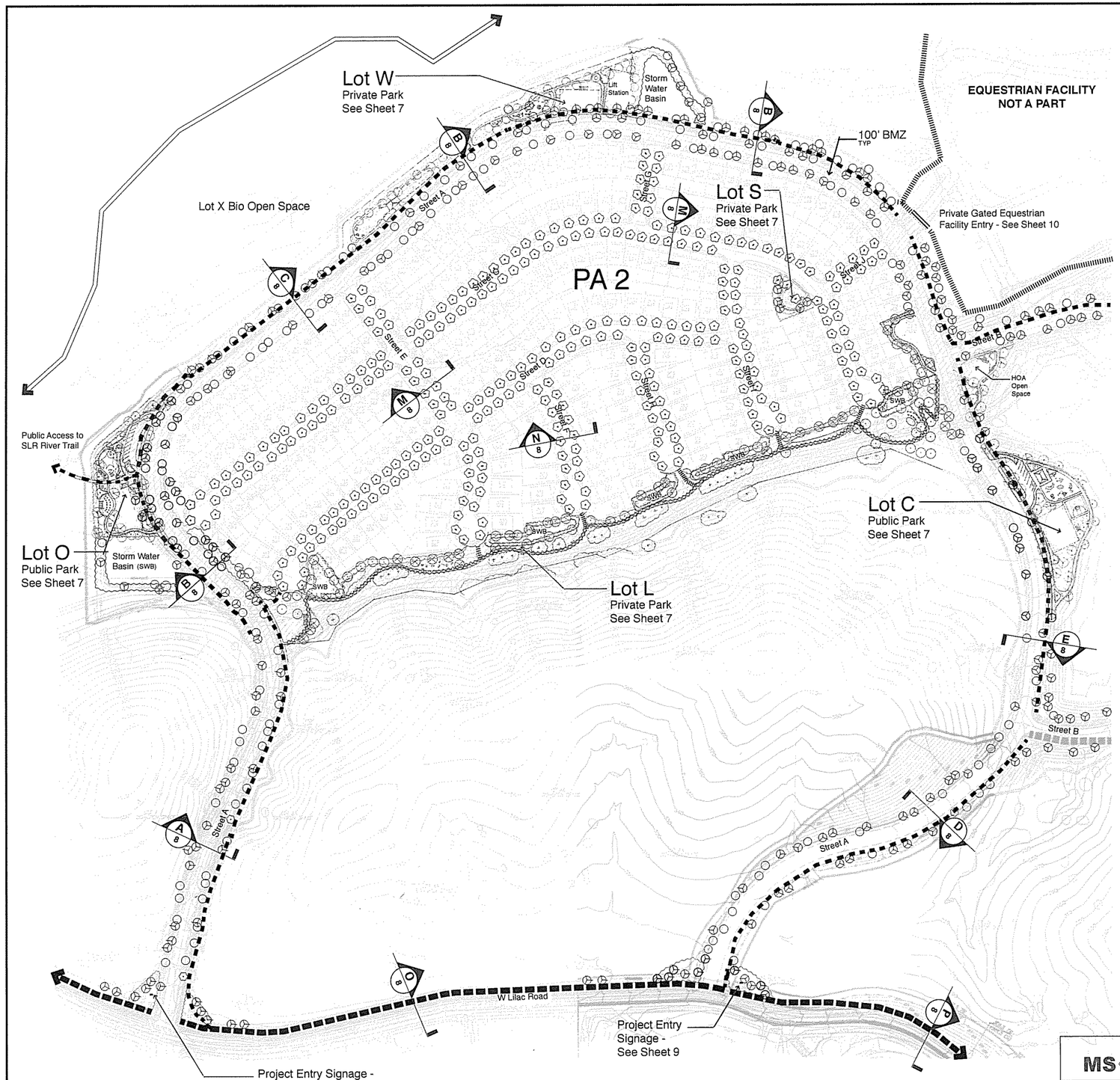
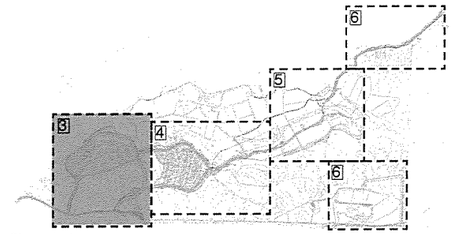
June 13, 2019 SHEET L-2 of L-10





Sheet Index

Legend

- Future Public SLR River Trail (By County)
- DG Pathway Public (8 FT Street A, 6 FT Street B)
- DG Pathway Private (5 ft - Dulin Road)
- DG Trail (Privately Maintained Open to Public)
- West Lilac Road Public DG Pathway
- 8' Public Trail (Privately Maintained Open to Public)
- Brush Management Zone

See Sections - Sheet 8 for Pathway and Trail widths

LANDSCAPE CONCEPT LEGEND

See Sheet 2 for Plant List

- Collector Loop Road Landscape
- Naturalized Transition Landscape/Exterior Slopes
- Neighborhood Streets
- Storm Water Basins (SWB)
- Park Landscape
- Interior Slopes

NOTES

All slopes over 3' in vertical height within individual residential lots will be similarly planted and irrigated from landscape documentation package plans submitted during review of grading permit application. The developer will plant, irrigate, and maintain these slopes until such time as others purchase and build upon the lot. At that time irrigation point of connections will be converted over to the individual lot owner/or HOA and no longer the responsibility of the developer.

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Landscape Concept Plan

MUP #PDS2016-MUP-16-012

June 13, 2019 SHEET L-3 of L-10

LANDSCAPE CONCEPT LEGEND

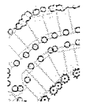
See Sheet 2 for Plant List


Collector Loop Road Landscape


Naturalized Transition Landscape/Exterior Slopes


Park Landscape


Interior Slopes

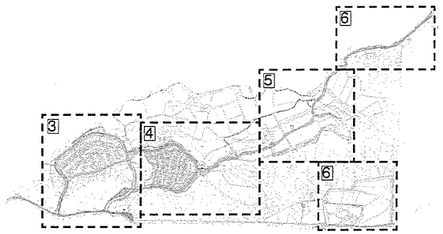

Neighborhood Streets


Storm Water Basins

Legend

- Future Public SLR River Trail (By County)
- DG Pathway Public (8 FT Street A, 6 FT Street B)
- DG Pathway Private (5 ft - Dulin Road)
- DG Trail (Privately Maintained Open to Public)
- West Lilac Road Public DG Pathway
- 8' Public Trail (Privately Maintained Open to Public)
- Brush Management Zone

See Sections - Sheet 8 for Pathway and Trail widths



NOTES

All slopes over 3' in vertical height within individual residential lots will be similarly planted and irrigated from landscape documentation package plans submitted during review of grading permit application. The developer will plant, irrigate, and maintain these slopes until such time as others purchase and build upon the lot. At that time irrigation point of connections will be converted over to the individual lot owner/or HOA and no longer the responsibility of the developer.

EQUESTRIAN FACILITY NOT A PART

Lot T
Private Park
See Sheet 7

EQUESTRIAN FACILITY NOT A PART

Equestrian Estate Parcel

395

Storm Water Basin

100' BMZ TYP

Street B

Street A

Street C

Street D

Street E

Bio-Open Space

100' BMZ TYP

Storm Water Basin

Dulin Road Private

Gated Private Pedestrian and Vehicle PA 3 Estate Entry
See Sheet 10

Secondary Entry Sign Location

8' Trail Within 15' Wide Public Trail Easement
- Along Existing Graded Access
Open Wire Fence on Each Side

Lot I
Private Park
See Sheet 7

See Sheet 6

N
0 50' 100' 200'
SCALE 1"=100'

5th Submittal 07-30-2019
4th Submittal 05-21-2019
3rd Submittal 12-10-2018
2nd Submittal 5-23-2018
Original Submittal 9-28-2016

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TRACT 5615 TENTATIVE MAP
TM PLAN
OCEAN BREEZE RANCH

Landscape Concept Plan
MUP #PDS2016-MUP-16-012

June 13, 2019 SHEET L-4 of L-10

Legend

- Future Public SLR River Trail (By County)
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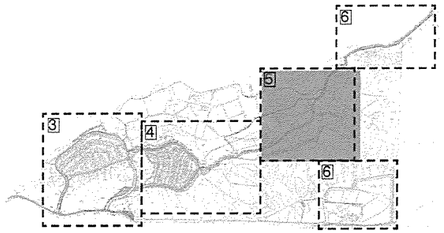
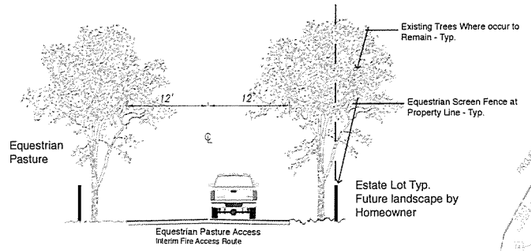


Sheet Index

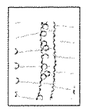


A Equestrian MUP Edge at Estate Lots
NTS

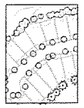
LANDSCAPE CONCEPT LEGEND

See Sheet 2 for Plant List

Naturalized Transition Landscape/Exterior Slopes



Interior Slopes



Neighborhood Streets

Storm Water Basins
SWB

NOTES

1. Temporary irrigation may be required to establish plantings in graded areas, or any areas that may be disturbed during development and not planned for permanent irrigation

2. For typical Estate Lot layout and fencing see sheet L-9.

3. All slopes over 3' in vertical height within individual residential lots will be similarly planted and irrigated from landscape documentation package plans submitted during review of grading permit application. The developer will plant, irrigate, and maintain these slopes until such time as others purchase and build upon the lot. At that time irrigation point of connections will be converted over to the individual lot owner/or HOA and no longer the responsibility of the developer

Property Fence - See Sheet 9

PA 3 Pedestrian Gate to Future SLR Trail - Location to be Determined. See Sheet 10

PA 3 - Equestrian Internal Gate D - See Sheet 10

End of Proposed Landscape - Existing natural landscape to remain as is to project boundary at Rancho Monserate. Non Irrigated native seed mix to be applied to any disturbed areas.

100 BMZ - Fuel Modification Landscape and other Landscape Improvements by Future Owners

EQUESTRIAN FACILITY NOT A PART

Equestrian Estate Parcel

Storm Water Basin

Storm Water Basin

Storm Water Basin

Street P

Dulin Road Private

Dulin Road Private

PLANNING AREA 3

HOA LOT YY OPEN SPACE

HOA LOT SS OPEN SPACE

LOT BB BIO-OPEN SPACE

PLANNING AREA BOUNDARY

391 390 389 388 387 386 385 384 383 382 393 394 395 392

SCALE 1"=100

5th Submittal 07-30-2019	
4th Submittal 05-21-2019	
3rd Submittal 12-10-2018	
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MUP #PDS2016-MUP-16-012

June 13, 2019 SHEET L-5 of L-10

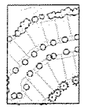
SHEET 10 of 28

LANDSCAPE CONCEPT LEGEND

See Sheet 2 for Plant List

Naturalized Transition Landscape/Exterior Slopes

Interior Slopes



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See Sections - Sheet 8 for Pathway and Trail widths

100 BMZ - Fuel Modification Landscape and other Landscape Improvements by Future Owners

Hillside Estate Parcel

396

Remainder Parcel

8' Trail Within 15' Wide Trail Easement - Along Existing Graded Access Road

Open Wire Fence on Each Side

Existing Natural Landscape to Remain

Non Irrigated native seed mix to be applied to any disturbed areas. Temporary Irrigation may be used for establishment

Existing Natural Landscape to Remain

Sullivan Middle School - NAP

PROJECT BOUNDARY

West Lilac Road

8' Trail Within 15' Wide Trail Easement - Along Existing Graded Access Road

Open Wire Fence on Each Side

Vehicle Gate with Permanently Open Pedestrian Access to Traill

PA 3 Secondary Private Gate Access.

Public pedestrian access to SLR Trail is to be outside of property fence and gate.

Rancho Monserate

Project Secondary Entry Signage - See Sheet 9

Gate Access See Sheet 10

Proposed County San Luis Rey River Trail (NAP) Exact location to be determined by others

Dulin Rd

Existing Natural Landscape to Remain

Non Irrigated native seed mix to be applied to any disturbed areas.

Temporary Irrigation may be used for establishment

NOTES

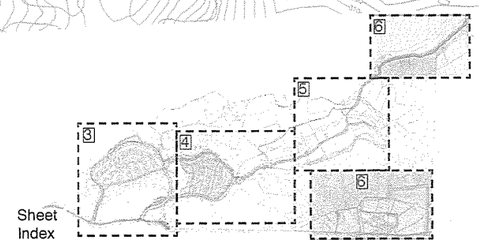
1. Temporary irrigation may be required to establish plantings in graded areas, or any areas that may be disturbed during development and not planned for permanent irrigation

2. For typical Estate Lot layout and fencing see sheet L-9.

3. All slopes over 3' in vertical height within individual residential lots will be similarly planted and irrigated from landscape documentation package plans submitted during review of grading permit application. The developer will plant, irrigate, and maintain these slopes until such time as others purchase and build upon the lot. At that time irrigation point of connections will be converted over to the individual lot owner/or HOA and no longer the responsibility of the developer

N 0' 50' 100' 200' SCALE 1"=100'

Sheet Index



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OCEAN BREEZE RANCH

TM PLAN

Landscape Concept Plan

MUP #PDS2016-MUP-16-012

June 13, 2019

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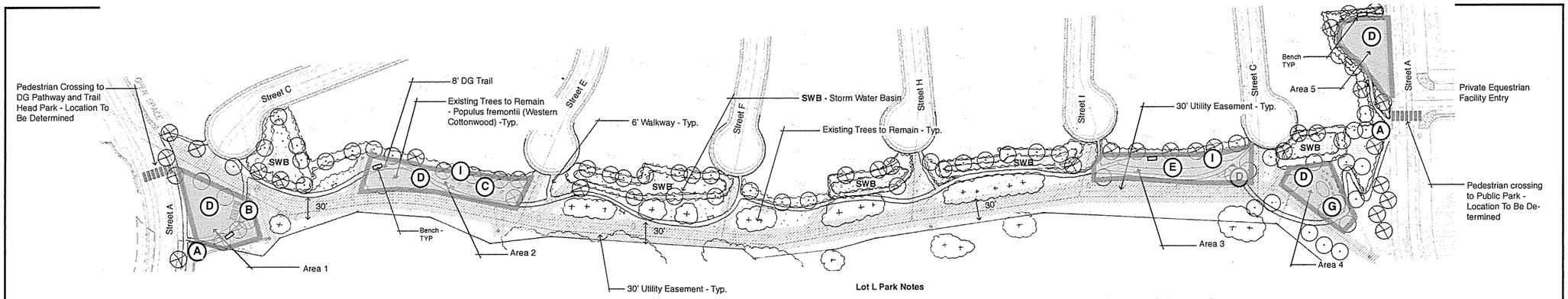


Lot L- Pivate Linear Park

SCALE 1"=60'

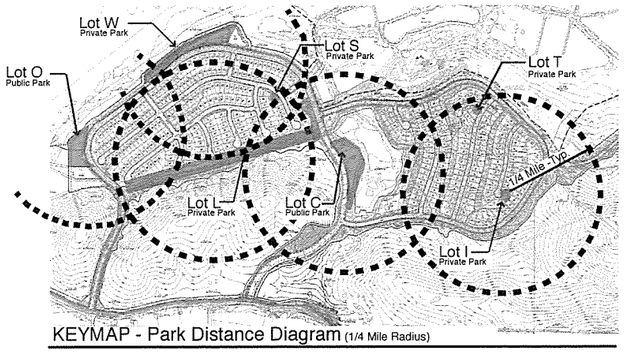
Linear Park - PLDO Active Rec Use Areas

Areas of Active Recreational Uses - Excludes Utility Easements

Area 1 - 10,000 sf
Area 2 - 15,000 sf
Area 3 - 11,700 sf
Area 4 - 5,600 sf
Area 5 - 9,000 sf
Total - 51,300sf +/-

Lot L Park Notes

1. For Existing Trees to Remain - see landscape notes sheet L-2 for notes on development of a tree protection plan that will be required to protect trees during construction on Final Landscape Development Plans.
2. Storm drain will be maintained by HOA.
3. Exisitng Overhead Lines within the Residential MUP will be removed and service will be provided via new underground systems.



KEYMAP - Park Distance Diagram (1/4 Mile Radius)

SCALE 1"=600'

Areas of Active Recreational Uses - Excludes Utility Easements

Park Plan Notes

1. Park planting shall avoid/or reduce using plant types that drop plant material (seeds, flowers, pods) that may impede or limit ADA path of travel.
2. Parks shall incorporate ADA component(s) to the proposed play equipment structure.
3. Wood Chips/Rubberized surfacing (or a combination of) shall be used at all play equipment.
4. All County Public Parks will require DPR themed monument sign(s) to be located at park entrances. Final type and location will need to be approved by DPR during the Final Landscape Documentation package.
5. Roadway crossings are desired between parks where feasible. PDS and DPW to work together to access optimum locations for crossings to connect parks.
6. Tree species with known surface roots shall be restricted form areas of public use
7. All plant species for parks shall be drought tolerant and resiliient to local pests.
8. Buffer Planting along park edges adjacent to Lox X open space shall consist of locally native species to avoid the spread of non native and invasive species int the San Luis Rey River Park and Corridor.
9. San Diego County DPR recommends locally native Quercus species to avoid hybridization along the San Luis Rey River Corridor

Park Plan Legend

- (A) Park Monument Entry Sign - typ.
- (B) Picnic/Seating Area w/ Trellis
- (C) Play Area (Age Separated)
- (D) Open Turf Area*
- (E) Fenced Dog Run
- (F) Half Court Basketball
- (G) Grass Amphitheater*
- (H) Restroom/Maintenance With Park Information Sign
- (I) Picnic Table
- Bench - Typical
- Mini Monument Sign

* Use of Water-wise turf alternatives are suggested. Artifical Turf may be considered on a case by case basis.

Summary Park Acreage Type And Credits

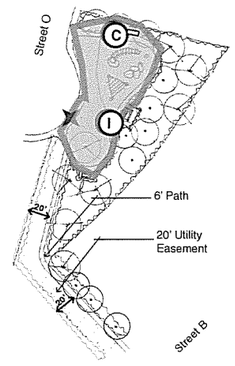
SUMMARY PARK ACREAGE TYPE AND CREDIT

Required	Units	Required sf/du	Required Acres
Bonsall LPPA	396	352.84	3.2

Provided

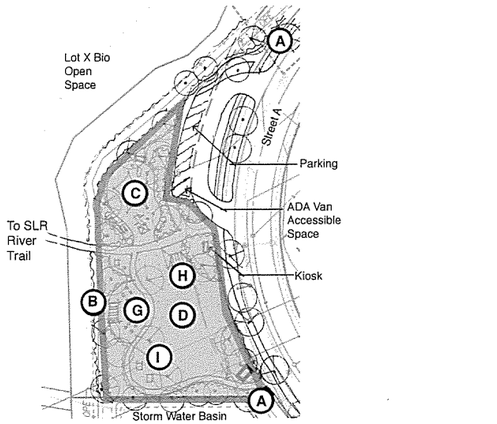
Lot Number - Park Name	Public or Private	Gross Acres	Net Acres (Per PLDO)		Eligible Recreational Uses
Lot L - Linear Park	Private	7.02	.58	50%	Informal Open Lawn Area, One Group Shade Structure, Three Picnic Tables, Multi Age Play Area, Seating areas, Trails, Dog Run, Amphitheater
Lot C - Neighborhood Park	Public	2.81	0.96	100%	Informal Open Lawn usable for youth soccer, Half Court Basketball, Shade Structure, Three Picnic Tables, Multi Age Children's Play Areas, Seating areas, Trails
Lot O - Trail Head Park	Public	1.68	0.90	100%	Shade Structure, Four Picnic Tables, Multi Age Children's Play Areas, Seating areas, amphitheater, Trails, Kiosk, Open lawn Area
Lot I - Pocket Park	Private	0.51	0.14	50%	Multi Age Children's Play Areas, Seating areas, Informal Lawn Area
Lot S /T- Pocket Parks	Private	0.34	0.16	50%	Seating areas, Open Lawn
Lot W - Neighborhood Park	Private	3.35	0.60	50%	Multi Age Children's Play Areas, Shade structure, Three Picnic Tables, Seating areas, Open Lawn, Dog run or Free Leash Area, View Overlooks
TOTALS		15.92	3.34		

Net Acres listed for PLDO Credit reflect the 50% deduction



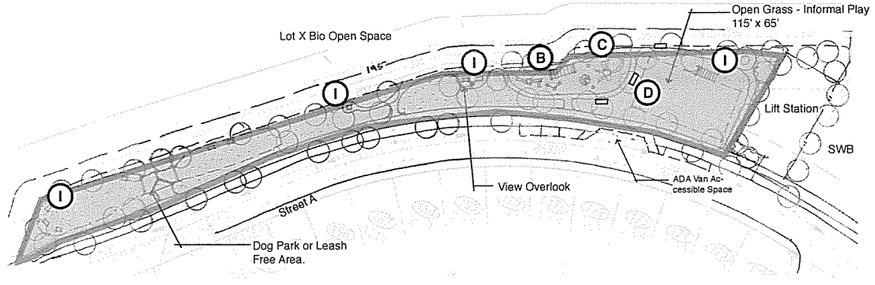
Lot I - Private Pocket Park

SCALE 1"=40'



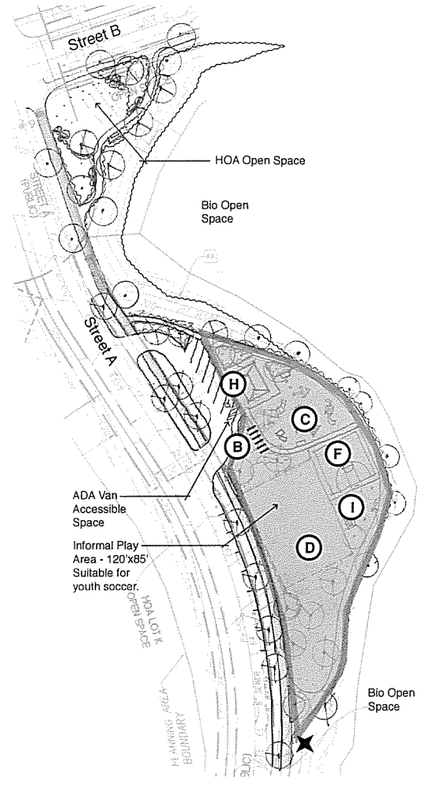
Lot O - Public Trail Head Park

SCALE 1"= 50'



Lot W Private Park

SCALE 1"=50'



Lot C Public Neighborhood Park

SCALE 1"=50'

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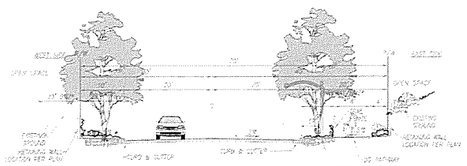
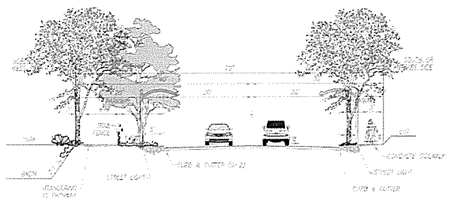
June 13, 2019

SHEET L-7 of L-10



Ⓐ Street A (Public) - Entry
NTS



Ⓑ Street A (Public)
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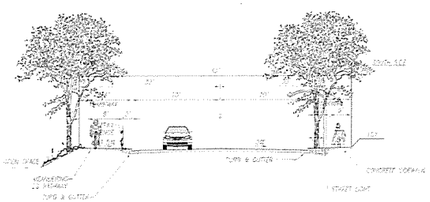
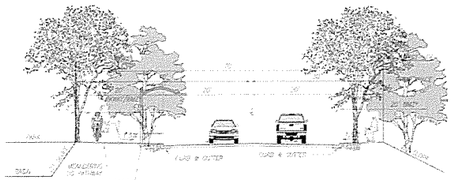


Ⓒ Street A (Public)
NTS



Ⓓ Street A (Public)
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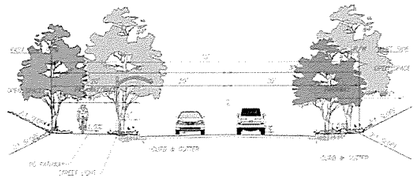
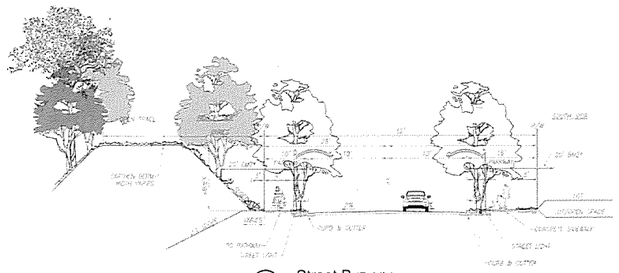
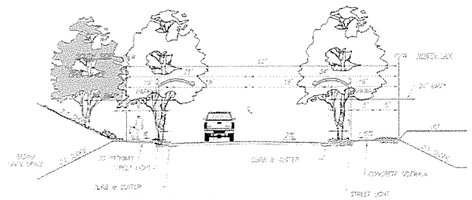


Ⓔ Street A (Public)
NTS



Ⓕ Street B (Public)
NTS



Ⓖ Street B (Public)
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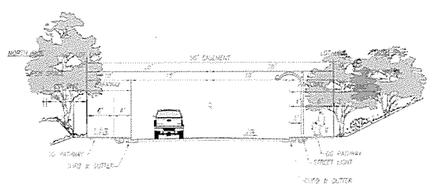

Ⓗ Street B (Public)
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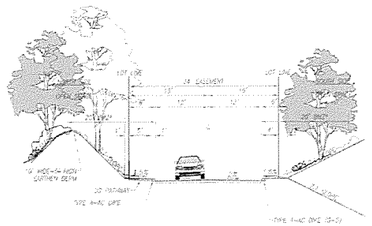
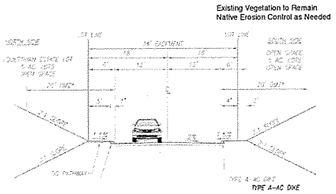


Ⓘ Dulin Road (Private)
NTS



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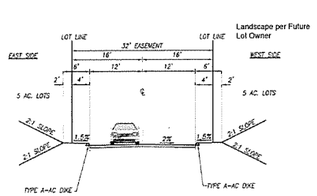
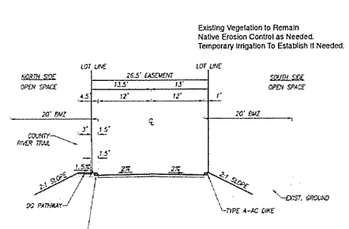
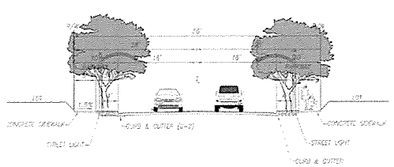


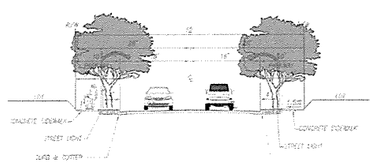
Ⓚ Street P (Private)
NTS



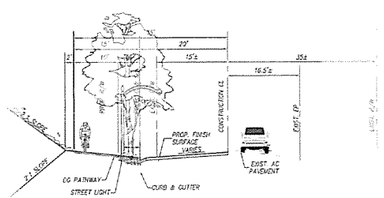
Ⓛ Dulin Road (Private)
NTS



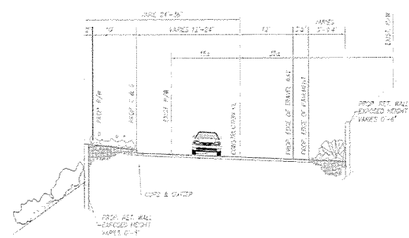
Ⓜ Residential Street (Public)
NTS



Ⓝ Residential Street - Cul De Sac (Public)
NTS



Ⓞ West Lilac Road (Public)
NTS



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OCEAN BREEZE RANCH
TM PLAN

Landscape Sections

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June 13, 2019 SHEET L-8 of L-10

Wall and Fence Legend

- 5'- 0" Masonry Privacy Wall
- 5'- 0" Open View Fence, Brown
- 5'- 0" Wood Screen Fence (non combustible)
- 42" Rail Fence - Pathway
- Primary Entry Monument Sign
- Secondary Entry Monument Sign
- Retaining Wall - Earth Tone Colors
- Post and Wire Trail Fence (Each Side of trail - Wildlife Friendly)
- Gate Location - See Sheet 10 For Concept Elevations

Color and Materials Notes:

1. All signage, wall and gate design shall conform to the Bonsall Design Guidelines and reflect the rural character of the community.

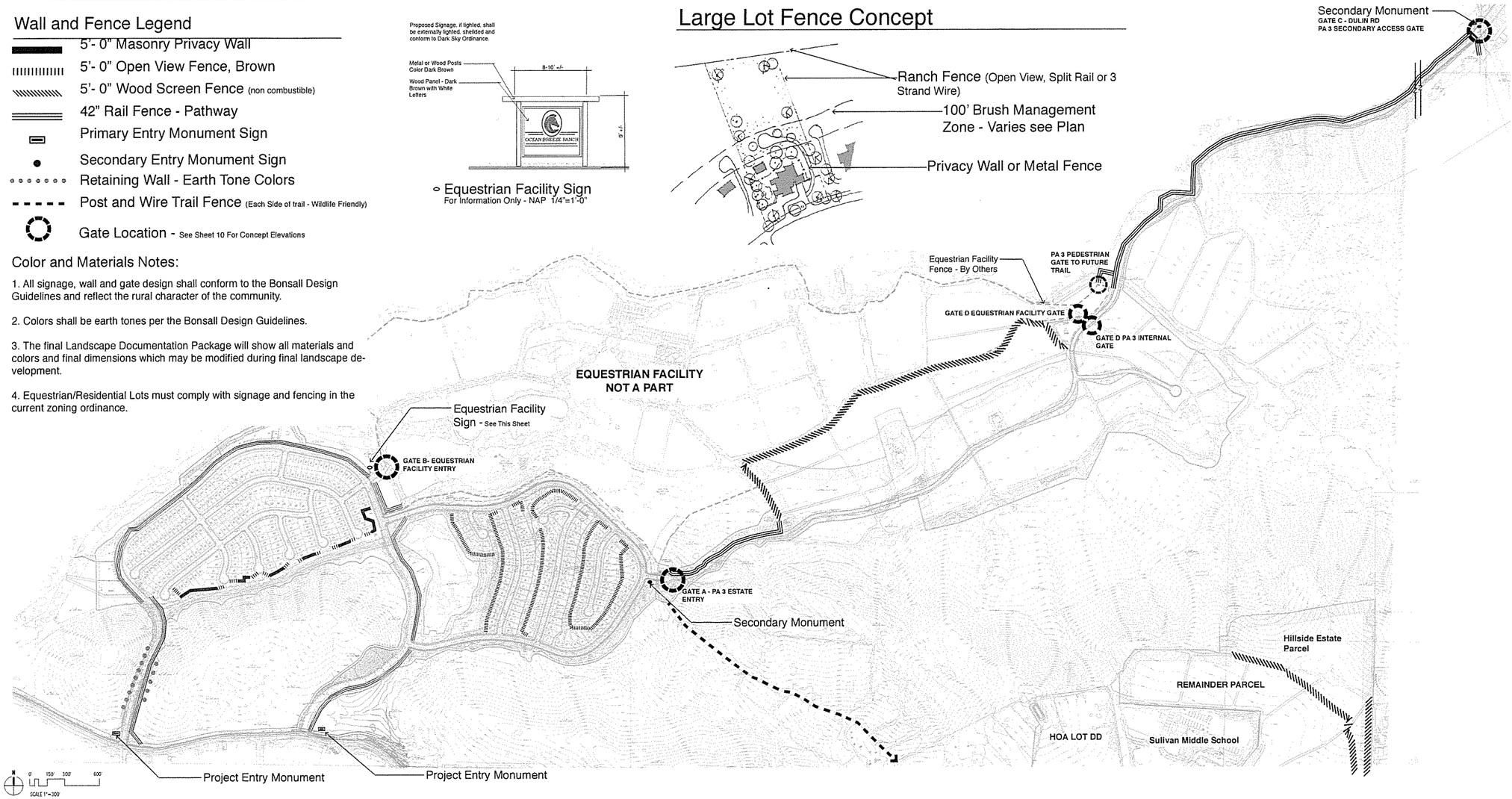
2. Colors shall be earth tones per the Bonsall Design Guidelines.

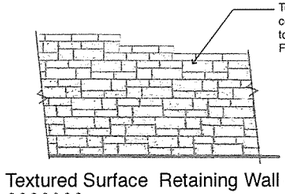
3. The final Landscape Documentation Package will show all materials and colors and final dimensions which may be modified during final landscape development.

4. Equestrian/Residential Lots must comply with signage and fencing in the current zoning ordinance.

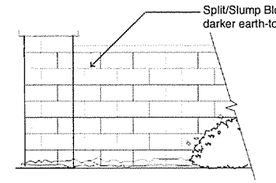
Equestrian Facility Sign
For Information Only - NAP 1/4"=1'-0"

Large Lot Fence Concept

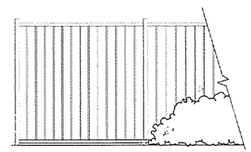




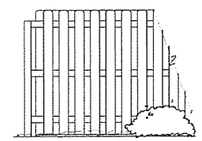
Textured Surface Retaining Wall - Along Entry Road



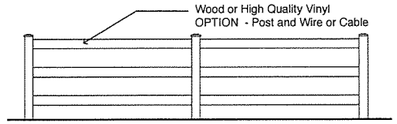
Masonry Privacy Wall



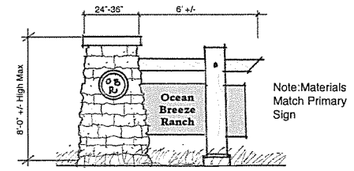
Open View Fence - Metal



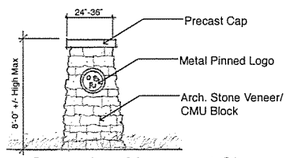
Wood Screen Fence



Cable/Wire/Rail Fence



Secondary Monument Sign (option)



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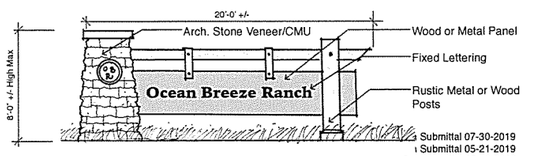


Primary Monument Sign

Submittal 07-30-2019
Submittal 05-21-2019
3rd Submittal 12-10-2018
2nd Submittal 5-23-2018
Original Submittal 9-28-2016

MS·ASLA

Landscape Architecture - Community Planning
305 North Coast Highway Suite T
Laguna Beach, CA 92651
949-375-2523

TRACT 5615 TENTATIVE MAP
TM PLAN

OCEAN BREEZE RANCH

Wall & Fence Plan

MUP #PDS2016-MUP-16-012

June 13, 2019

SHEET L-9 of L-10

Legend

- Future Public SLR River Trail (By County)
- DG Pathway Public (8 FT Street A, 6 FT Street B)
- DG Pathway Private (5 ft - Dulin Road)
- DG Trail (Privately Maintained Open to Public)
- West Lilac Road Public DG Pathway
- 8' Public Trail (Privately Maintained Open to Public)
- Brush Management Zone

See Sections - Sheet 8 for Pathway and Trail widths

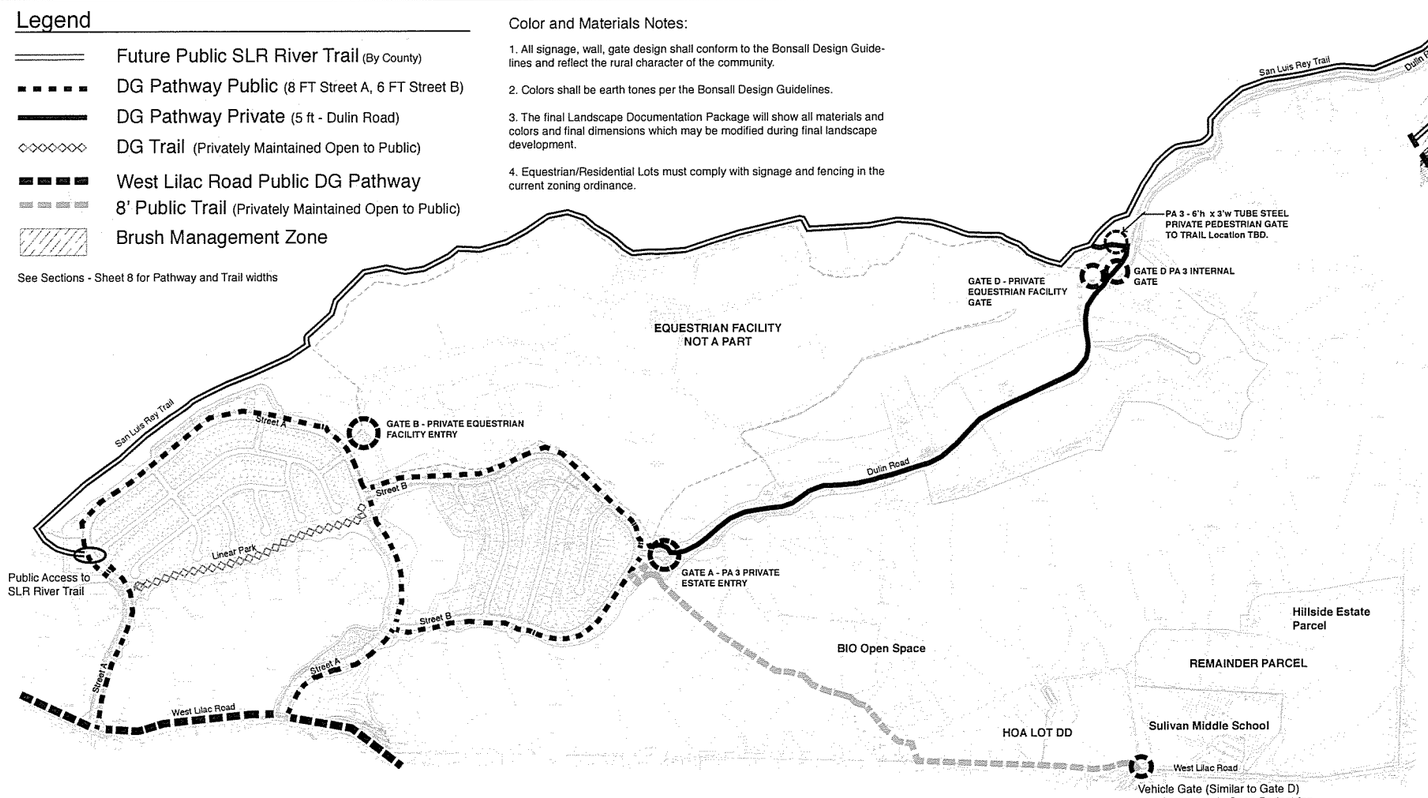
Color and Materials Notes:

1. All signage, wall, gate design shall conform to the Bonsall Design Guidelines and reflect the rural character of the community.

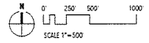
2. Colors shall be earth tones per the Bonsall Design Guidelines.

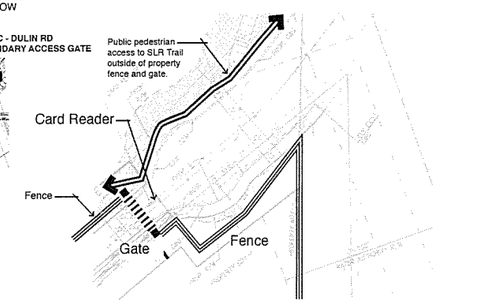
3. The final Landscape Documentation Package will show all materials and colors and final dimensions which may be modified during final landscape development.

4. Equestrian/Residential Lots must comply with signage and fencing in the current zoning ordinance.

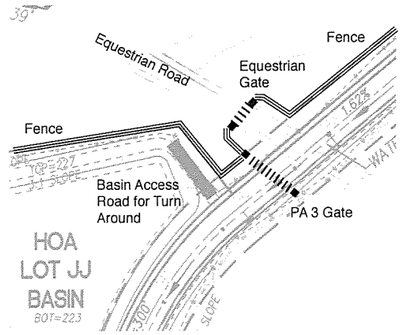


KEYMAP

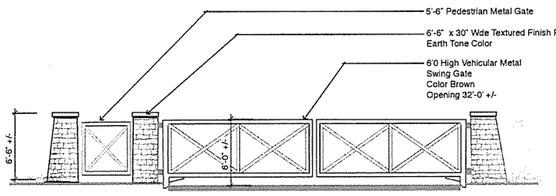




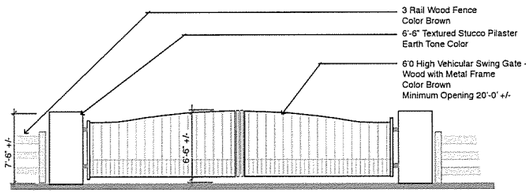
GATE C - PA 3 DULIN RD. SECONDARY ACCESS GATE
Scale 1"=40'



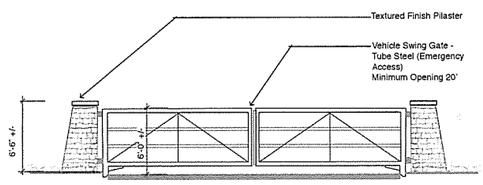
GATE D - EQUESTRIAN FACILITY / PA 3 INTERNAL GATE
Scale 1"=40'



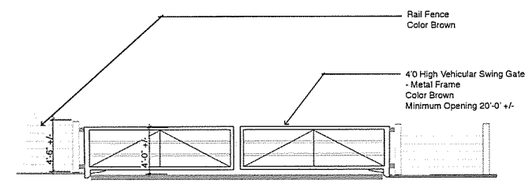
GATE A - PA 3 ESTATE MAIN ENTRY GATE
Scale 1/4"=1'-0"



GATE B - EQUESTRIAN FACILITY MAIN ENTRY GATE
Scale 1/4"=1'-0" FOR INFORMATION ONLY - NAP



GATE C - DULIN ROAD SECONDARY ACCESS GATE
Scale 1/4"=1'-0"



GATE D - EQUESTRIAN SECONDARY GATE / PA 3 INTERNAL GATE
Scale 1/4"=1'-0"

General Notes:

1. All gates shall conform to the Bonsall Design Guidelines and reflect the rural character of the community.

2. All gates must conform to Zoning Ordinance Section 6708. If gate entry structures are proposed on individual lots, they must conform to section 6708.h.

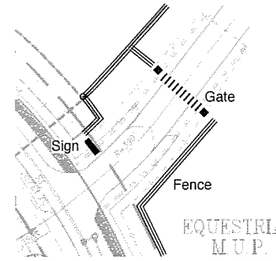
3. The final Landscape Documentation Package will show all materials and colors and final dimensions which may be modified during final landscape development.

SDCFA Notes:

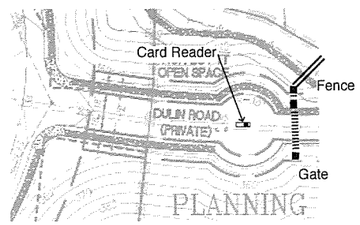
1. A thirty-foot (30') minimum radius turnaround shall be provided at the gated entrance.

2. The gated driveway entrance and card reader location shall be designed according to San Diego County Design Standards (such as DS 17, DS 18 or DS 19) and to the satisfaction of the Director of Public Works.

3. Gates shall be designed, placed, installed, and accessory features (such as key boxes, "break-away" devices, automatic openers, etc.) provided to the satisfaction of the Director of Public Works and in accordance with provisions outlined by the San Diego County fire protection district.



GATE B - EQUESTRIAN FACILITY MAIN GATE
Scale 1"=40' FOR INFORMATION ONLY - NAP



GATE A - PA 3 MAIN ENTRY GATE
Scale 1"=40'

5th Submittal 07-30-2019
4th Submittal 05-21-2019
3rd Submittal 12-10-2018
2nd Submittal 5-23-2018
Original Submittal 9-28-2016

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Landscape Architecture - Community Planning
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TRACT 5615 TENTATIVE MAP
OCEAN BREEZE RANCH
TM PLAN

Gate -Trail/Pathway Concept Plan

MUP #PDS2016-MUP-16-012

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Appendix E

Cumulative Projects List/Impacts

Table E-1
CUMULATIVE PROJECT LIST AND ASSESSMENT OF RELATED AGRICULTURAL RESOURCES/IMPACTS
OCEAN BREEZE RANCH PROJECT

Map Key[1]	Project Name	Project Number	Agricultural Resources Onsite[2,3]	LARA Model Required Factor Ratings and Important Agricultural Resource Designation	Direct Impact Estimate[2,3]	Potential Indirect Impact Estimate
1	Unnamed Project	PDS2011-4700-15625	The project site includes approximately 0.75 acre of candidate soils.	Water Factor; Moderate - The project site is located within the San Diego County Water Authority (SDCWA) service area and is adjacent to properties with metered service. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; Moderate - Approximately 25 percent of the site contains candidate soils, but there are not 10 contiguous acres. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project would directly impact all of the noted on-site candidate soils.	Indirect agricultural impacts related to this project are considered less than significant, as adjacent uses consist primarily of high-density urban development.
2	Bar Ranch TM	PDS2015-TM-5293R	The site contains approximately 1.5 acres of candidate soils.	Water Factor; High - The project site is located within the SDCWA and Vista Irrigation District service areas, and is adjacent to properties with metered service. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; High - Approximately 43 percent of the site contains candidate soils, although the site does not include 10 contiguous acres of such soils. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project would impact approximately 0.75 acre of candidate soils.	While this site is adjacent to commercial nursery uses, associated indirect agricultural impacts are anticipated to be less than significant, based on the fact that numerous existing medium- to high-density residential sites are also adjacent to the nursery property.
3	Mc Donald's Fallbrook	PDS2013-LDGRMJ-00008	The project site includes approximately 0.1 acre of candidate soils.	Water Factor; High - The project site is located within the SDCWA service area and is metered for service. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; Low - Candidate soils are limited to less than 0.1 acre. Because one required LARA Model factor is likely rated low, the project site is assumed not to be an important agricultural resource.	The project is developed and impacted approximately 0.1 acre of candidate soils.	No indirect agricultural impacts are anticipated from this project, as all adjacent and nearby areas encompass urban development.

Table E-1 (cont.)
CUMULATIVE PROJECT LIST AND ASSESSMENT OF RELATED AGRICULTURAL RESOURCES/IMPACTS
OCEAN BREEZE RANCH PROJECT

Map Key[1]	Project Name	Project Number	Agricultural Resources Onsite[2,3]	LARA Model Required Factor Ratings and Important Agricultural Resource Designation	Direct Impact Estimate[2,3]	Potential Indirect Impact Estimate
4/5	Fallbrook Assisted Living Center/ Fallbrook Senior Living	PDS2016-LDGRMJ-30071/ PDS2014-STP-14-010	The site contains approximately 2.5 acres of candidate soils.	Water Factor; Moderate -The project site is located within the SDCWA service area and is adjacent to properties with metered service. Climate Factor; High - The project site is located in Sunset Zone 23. Soil Factor; High - Over 90 percent of the site contains candidate soils, although it does not include 10 contiguous acres of such soils. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project site is developed and impacted all of the noted on-site candidate soils.	No indirect agricultural impacts are anticipated from these projects, as no adjacent or nearby agricultural uses are present.
6	County Project Grand Traditions GPA	PDS2015-GPA-15-005	The site contains approximately 8 acres of candidate soils.	Water Factor; Moderate -The project site is located within the SDCWA service area and is adjacent to properties with metered service. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; High - The entire site contains candidate soils. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project would involve a GPA for a zoning change that would not result in direct impacts to agricultural resources.	The proposed project would involve a GPA for a zoning change that would not result in any significant indirect impacts to agricultural resources.
7	Carson TPM	PDS2008-3200-21124	The site contains approximately 4.77 acres of candidate soils.	Water Factor; Moderate -The project site is located within the SDCWA service area and is adjacent to properties with metered service. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; High – The entire site contains candidate soils. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project would directly impact all of the noted on-site candidate soils.	While this site is adjacent to commercial nursery uses, associated indirect agricultural impacts are anticipated to be less than significant, based on the fact that numerous existing medium- to high-density residential sites are also adjacent to the nursery property.

Table E-1 (cont.)
CUMULATIVE PROJECT LIST AND ASSESSMENT OF RELATED AGRICULTURAL RESOURCES/IMPACTS
OCEAN BREEZE RANCH PROJECT

Map Key[1]	Project Name	Project Number	Agricultural Resources Onsite[2,3]	LARA Model Required Factor Ratings and Important Agricultural Resource Designation	Direct Impact Estimate[2,3]	Potential Indirect Impact Estimate
8	Fallbrook Oaks - Revised TM 5449 RPL1	PDS2015-TM-5449R	The site contains approximately 13 acres of candidate soils.	Water Factor; High - The project site is located within the SDCWA and Rainbow Municipal Water District (RMWD) service areas and adjacent properties include water service/meters. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; High - Approximately 50 percent of the site includes candidate soils, although the site does not include 10 contiguous acres of such soils. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project would directly impact all of the noted on-site candidate soils.	While this site is adjacent to orchard uses, associated indirect agricultural impacts are anticipated to be less than significant, based on the presence of other adjacent residential properties, as well as fact that orchards are generally compatible with most urban uses.
9	Daniels Gray Rabbit Hollow	PDS2014-TM-5364R	The site contains approximately 10.8 acres of avocado orchards and candidate soils.	Water Factor; Moderate -The project site is located within the SDCWA service area and is adjacent to properties with metered service. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; High - The entire site contains candidate soils, including 10 contiguous acres of such soils. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project would directly impact all of the noted on-site agricultural resources.	While this site is in the vicinity of commercial nursery uses, associated indirect agricultural impacts are anticipated to be less than significant, based on the fact that numerous existing medium- to high-density residential sites are adjacent or in closer proximity to the nursery property.
10	Green Canyon North, Tentative Map, 5553	PDS2008-3100-5553	This site includes approximately 12 acres of citrus orchards and 33.33 acres of candidate soils.	Water Factor; Moderate - The project site is located within the SDCWA service area and is adjacent to properties with metered service. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; High - The entire site contains candidate soils, including over 10 contiguous acres. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project would directly impact all of the noted on-site agricultural resources.	While this site is adjacent to orchard uses, associated indirect agricultural impacts are anticipated to be less than significant, based on the presence of other adjacent/nearby residential properties, as well as fact that orchards are generally compatible with most urban uses.

Table E-1 (cont.)
CUMULATIVE PROJECT LIST AND ASSESSMENT OF RELATED AGRICULTURAL RESOURCES/IMPACTS
OCEAN BREEZE RANCH PROJECT

Map Key[1]	Project Name	Project Number	Agricultural Resources Onsite[2,3]	LARA Model Required Factor Ratings and Important Agricultural Resource Designation	Direct Impact Estimate[2,3]	Potential Indirect Impact Estimate
11	L-15652 G&F Properties	PDS2012-2700-15652	The project site includes approximately 11.63 acres of candidate soils, 8 acres of commercial nurseries, and an 11.63-acre Williamson Act/Agricultural Preserve designation.	Water Factor; Moderate - The project site is located within the SDCWA service area and is adjacent to properties with metered service. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; High - The entire site contains candidate soils, including over 10 contiguous acres. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project would directly impact all of the noted on-site agricultural resources.	While this site is in the vicinity of commercial nursery uses, associated indirect agricultural impacts are anticipated to be less than significant, based on the fact that numerous existing residential sites are adjacent to nearby nursery properties.
12	Zephyr Partners, I-15 STP 11-002	PDS2011-3500-11-002	The project site includes approximately 0.5 acre of candidate soils.	Water Factor; High - The project site is located within the SDCWA and RMWD service areas and is adjacent to properties with metered service. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; Moderate - Approximately 50 percent of the site contains candidate soils, but there are not 10 contiguous acres. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project would directly impact all of the noted on-site candidate soils.	No indirect agricultural impacts are anticipated from these projects, as no adjacent or nearby agricultural uses are present.
13	Jackson Ranch TPM	PDS2013-TPM-21203	The project site includes approximately 23 acres of citrus orchards and 20 acres of candidate soils.	Water Factor; Moderate - The project site is located within the SDCWA service area and is adjacent to properties with metered service. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; High - Approximately 83 percent of the site contains candidate soils, including over 10 contiguous acres. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project would directly impact approximately11.5 acres of citrus orchards and 10 acres of candidate soils.	While this site is adjacent to commercial nursery uses, associated indirect agricultural impacts are anticipated to be less than significant, based on the fact that numerous existing residential sites are also adjacent or in close proximity to the nursery property.

Table E-1 (cont.)
CUMULATIVE PROJECT LIST AND ASSESSMENT OF RELATED AGRICULTURAL RESOURCES/IMPACTS
OCEAN BREEZE RANCH PROJECT

Map Key[1]	Project Name	Project Number	Agricultural Resources Onsite[2,3]	LARA Model Required Factor Ratings and Important Agricultural Resource Designation	Direct Impact Estimate[2,3]	Potential Indirect Impact Estimate
14	Ramona TPM	PDS2016-TPM-21233	The project site includes approximately 1.5 acres of candidate soils.	Water Factor; High - The project site is located within the SDCWA and RMWD service areas and is adjacent to properties with metered service. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; Moderate - Approximately 25 percent of the site contains candidate soils, but there are not10 contiguous acres. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project would directly impact approximately 0.75 acre of candidate soils.	No indirect agricultural impacts are anticipated from these projects, as no adjacent or nearby agricultural uses are present.
15	Verizon: Winter Crest MUP	PDS2014-MUP-14-043	The project site includes approximately 1.8 acres of candidate soils and 4.5 acres of avocado orchards.	Water Factor; High - The project site is located within the SDCWA and RMWD service areas and is adjacent to properties with metered service. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; Moderate - Approximately 33 percent of the site contains candidate soils, but there are not 10 contiguous acres. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project would directly impact approximately 0.9 acre of candidate soils and 2.3 acres of avocado orchards.	While this site is adjacent to orchard uses, associated indirect agricultural impacts are anticipated to be less than significant, based on the presence of other adjacent/nearby residential properties, as well as fact that orchards are generally compatible with most urban uses.
16	SJC, Minor Subdivision 2 Lots, TPM 211	PDS 2008-3200-21152	The project site includes approximately 3 acres of candidate soils and 1 acre of avocado orchards.	Water Factor; High - The project site is located within the SDCWA and RMWD service areas and is adjacent to properties with metered service. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; High - Over 75 percent of the site contains candidate soils. Based on the noted ratings for LARA Model required factors, the project site is assumed to be an important agricultural resource.	The project would directly impact approximately1.5 acres of candidate soils and 0.5 acre of avocado orchards.	While this site is in close proximity to orchard uses, associated indirect agricultural impacts are anticipated to be less than significant, based on the presence of other adjacent/nearby residential properties, as well as fact that orchards are generally compatible with most urban uses.

Table E-1 (cont.)
CUMULATIVE PROJECT LIST AND ASSESSMENT OF RELATED AGRICULTURAL RESOURCES/IMPACTS
OCEAN BREEZE RANCH PROJECT

Map Key[1]	Project Name	Project Number	Agricultural Resources Onsite[2,3]	LARA Model Required Factor Ratings and Important Agricultural Resource Designation	Direct Impact Estimate[2,3]	Potential Indirect Impact Estimate
17	Dai Dang Meditation Center MUP	PDS2004-3300-04-016	The site contains approximately 0.5 acre of candidate soils.	Water Factor; High - The project site is located within the SDCWA and RMWD service areas, and adjacent properties include water service/meters. Climate Factor; High - The project is located in Sunset Zone 23. Soil Factor; Low - Approximately 6 percent of the site contains candidate soils, and does not include 10 contiguous acres of such soils. Because one required LARA Model factor is likely rated low, the project site is assumed not to be an important agricultural resource.	The proposed project would directly impact approximately 0.25 acre of candidate soils.	While this site is adjacent to orchard uses, associated indirect agricultural impacts are anticipated to be less than significant, based on the presence of other adjacent residential properties, as well as fact that orchards are generally compatible with most urban uses.

Source: (County of San Diego 2016b)

[1] Refer to Figure 11 of the Agricultural Resources Report for Project site Locations.

[2] Candidate soils include Prime Farmland and Farmland of Statewide Importance candidate soils.

[3] Based on field observation and aerial photograph review, it is estimated that: (1) orchards within the cumulative study area include approximately 85 percent avocados, 15 percent citrus, and less than 1 percent other varieties (e.g., pomegranates); (2) nurseries within the cumulative study area include approximately 10 percent cut flowers and 90 percent other varieties (e.g., landscaping, fruit trees, etc.); and (3) row/field crop sites within the cumulative study area include approximately 25 percent cut flowers and 75 percent other varieties (e.g., strawberries and tomatoes).